

INDEX OF AUTHORS' NAMES

ABSTRACTS A and B, 1927.

An asterisk denotes a previous abstract. Patents are marked (P.).

Anonymous.

- electrospheradising, B., 490.
- determination of oil and ammonia in cotton seed, B., 584.
- "crystallising-out" of solutions of driers, B., 634.
- ephedrine sulphate, B., 713.
- colour photography and the "lignose screen," B., 734.
- scleron metal, B., 880.
- identification of cuprammonium rayon, B., 934.
- [yield from] barley of different nitrogen content, B., 950.

A.

- "A.P.I.C.E." Soc. Anon. Prodotti Italiana Chimici Estrattivi, rendering table salt non-hygroscopic, (P.), B., 252.
- Aagaard, C. See Bridel, M.
- Aagaard, T. See Bridel, M.
- Aarnio, B., and Salminen, A., changes in reaction with the ageing of soil samples, B., 973.
- Aaronson, H. A. See Olsen, F.
- Aarts, C. J. G., process and apparatus for the condensation of zinc vapours, (P.), B., 337.
- Abakumovsky, L. See Nametkin, S. S.
- Abbink, J. H. See Dorgelo, H. B.
- Abbott, A. V., low-temperature distillation retort, (P.), B., 643.
- Abbott, O. D., utilisation of pentoses by yeasts, and the composition of plant gums, A., 700.
- Abbott, R. C. See Blish, M. J.
- Abbott, R. K. See Respro, Inc.
- Abbott, W. E., determination of organic matter in sewage and effluent, B., 766.
- Abbott Laboratories. See Nielsen, C., Raiziss, G. W., and Volwiler, E. H.
- Ab-Der-Halden, C., conversion of heavy into light hydrocarbons, (P.), B., 357.
- carbonisation at low temperature of hydrocarbonaceous material, (P.), B., 804.
- Abderhalden, E., unsaturated dipeptide-anhydrides and dehydration of amino-acid derivatives, A., 776.
- alcoholic fermentation by yeast-cells under various conditions. VIII., A., 1113.
- influence of natural and synthetic thyroxines on alcoholic fermentation, A., 1113.
- sulphur in proteins. III. Derivatives of *l*- and *i*-cystine, A., 1212.
- Abderhalden, E., and Buadze, S., behaviour of 2:5-diketopiperazines in the animal body, A., 276.
- action of choline on the animal organism and its relation to creatine, A., 696.
- Abderhalden, E., and Haas, R., spectrographic investigation of amino-acids, polypeptides, and diketopiperazines. II. Absorptive power of mixtures of known compounds, A., 6.
- structure of amino-acids, polypeptides, and related compounds, A., 451.
- spectroscopic researches on aromatic amino-acids and their derivatives, A., 608.
- Abderhalden, E., and Hartmann, J., behaviour of *dl*-alanyl- δ -aminovaleric acid and *dl*-leucyl- δ -aminovaleric acid towards polypeptidases, A., 1113.
- Abderhalden, E., and Kröner, W., structure of proteins, A., 984.
- Abderhalden, E., and Mahn, H., effect of alkali, acid, and enzymes on proteins, peptones, polypeptides, 2:5-diketopiperazines, and related compounds, A., 1099.
- Abderhalden, E., and Rossner, E., diketopiperazines; unsaturated anhydride from leucylglycine anhydride; synthesis of tertiary leucine, A., 576.
- unsaturated compounds from α -amino-acids and their conversion into α -keto-acids, A., 652.
- synthesis of tertiary leucine, A., 652.
- spectrophotometric comparison of natural and synthetic thyroxines, A., 1068.
- Abderhalden, E., and Schapiro, N., behaviour of *l*-leucylglycyl-*l*-tyrosine and *d*-leucylglycyl-*l*-tyrosine towards yeast maceration juice, pancreatic juice, and intestinal juice, A., 1113.
- Abderhalden, E., and Schnitzler, E., copper salts of amino-acids and polypeptides, A., 451.
- copper salts of optically active amino-acids and similar polypeptides in polarised light, A., 451.
- structure of silk fibroin. I. Structure of peptone prepared from silk, A., 686.
- Abderhalden, E., and Schwab, E., compounds of diketopiperazine with amino-acids, A., 676.
- preparation of a colloidal substance from diglycylglycine methyl ester, A., 676.
- specific adaptation of polypeptidases, A., 1112.
- Abe, S., and Hara, R., catalytic oxidation of cyanogen to nitric oxide, and the intermediate product, A., 321.
- Abel, E., and Redlich, O., ternary system lead-antimony-arsenic, A., 517.
- Abele, G. See Springer, U.
- Abelin, C., iodine content of the thyroid in relation to its histological structure and activity, A., 896.
- Abelin, J., and Kober, B., specific dynamic action of food. V. Influence of sodium phosphate on gaseous exchange after ingestion of meat, A., 276.
- specific dynamic action of food. VI. Specific dynamic action and carbohydrate exchange, A., 897.
- Abelsdorff, R. H. See Nagel, W.
- Abendroth, W. See Siemens-Schuckertwerke G.m.b.H.
- Aberdeen, J., and Laby, T. H., conduction of heat through powders and its dependence on pressure and conductivity of the gaseous phase, B., 31.
- Abernathy, L. R., apparatus for the destructive distillation of oil shale, (P.), B., 403.
- Aberson, J. H., stimulation [of plant growth], B., 973.
- Aborn, R. H. See Clark, G. L.
- Aboulenc, J. See Senderens, J. B.
- Abrams, A. J. J. See Davis, T. L.
- Abramson, H. A., and Gray, S. H., diffusion of water into lecithin-collodion membranes, A., 825.
- Afrey, R. H., manufacture of artificial stone, (P.), B., 703.
- Achar, N. V., and Usher, F. L., chemical action at an interface; production of acidity in neutral salt solutions, A., 931.
- Achard, C., Grigaut, A., and Leblanc, A., lipid equilibrium of blood-serum, A., 588.
- Acheson, G. W., preparing rubber compositions, (P.), B., 372.
- preparation of pigment-oil compositions, (P.), B., 947.
- Achille Serre, Ltd. See Allott, E. A., and Hatfield, A. E.
- Achmatowicz, O., new terpene alcohol, C₁₀H₁₈O, A., 250.
- Ackerman, J. van, and Koppers Co., coking retort oven, (P.), B., 402, 771*.
- Ackerman, D. E. See Fraser, O. B. J.

- Ackermann, C. L., system manganese-zinc, A., 627.
 Ackermann, D., identity of actinino with γ -butyrobetaine, A., 987.
 Ackermann, D., Poller, K., and Linneweh, W., trimethylamino oxide as biological hydrogen acceptor, A., 171.
 trimethylamino oxide as hydrogen acceptor in intermediary metabolism with particular reference to the sulphhydryl group, A., 989.
 Ackers, A. E., manufacture of icing sugar, (P.), B., 665.
 Acly, H. E., and French, H. S., study of the molecular constitution of certain organic compounds by the absorption of light, A., 449.
 Acme Products Co., Inc. See Logan, W. B.
 Acme Rayon Corporation. See Hutter, C. A.
 Adair, G. S., activity coefficients of protein ions, A., 1028.
 osmometric method of determining the mol. wt. of proteins, A., 1212.
 Adam, H. R., palladium mineral from Potgietersrust platinum fields, A., 851.
 Adam, M. A., [rotary transporter for plant used in] the detinning of tinned iron scrap, etc., (P.), B., 848.
 Adam, N. See Gail, J. B.
 Adam, N. K., "intertraction," A., 16.
 polishing of surfaces, A., 192, 299.
 surface tension of solids, A., 404.
 Adam, N. K., and Jessop, G., insoluble films on liquid surfaces, A., 108*.
 Adam, W. G., plea for standardisation of analytical methods in coal-tar products specifications, B., 39.
 Adam, W. G. [with Robinson, F. W.], distilled tar for roads, B., 37.
 Adams, A. B. See Iscovesco, H.
 Adams, C. S. See Smith, A. W.
 Adams, F. W., effect of particle size on the hydration of lime, B., 476.
 Adams, G. See Nelson, V. E.
 Adams, M. See Sherman, H. C.
 Adams, R., Cohen, F. L., and Rees, O. W., reduction of aromatic nitro-compounds to amines with hydrogen and platinum oxide platinum-black as catalysts. XIV., A., 552.
 Adams, R., Davidson, J. M., Gubelmann, I., and Newport Co., preparing [3-nitro-4-aminobenzoyl-*o*-benzoic acid and derivatives, (P.), B., 212.
 Adams, R. See also Barnes, O. A., Bray, R. H., Brubaker, M. M., Heckel, H., Hiers, G. S., Puntambeker, S. V., Stonder, F. D., Talbot, R. H., and Tomecko, C. G.
 Adams, W. C. See De Groote, M.
 Adamson, A. N., and Wood, J. K., behaviour of oxides of lead towards dyestuffs. I and II, B., 324, 549.
 Adamson, C. H., and Bell, G. S., transverse and other tests on cast-iron test-bars, B., 844.
 Adan, R., spectrographic detection and determination of impurities in aluminium and its alloys, B., 143.
 Adco, Ltd. See Richards, E. H.
 Adcock, F., alloys of iron research. V. Preparation of pure chromium, B., 444.
 Addicks, D. C., disintegrating machine, (P.), B., 895.
 Addis, T., MacKay, E. M., and MacKay, L. L., effect on the kidney of long-continued administration of diets containing an excess of certain food elements. I. Excess of protein and cystine. II. Excess of acid and alkali, A., 170.
 Addy, C. W. See British Celanese, Ltd.
 Adelantado, L., manufacture of phosphate fertiliser, (P.), B., 151.
 Adickes, F., addition of alkali alkoxide to esters. II., A., 41.
 addition of alkali alkoxide to esters. III. Addition of alkali alkoxide to ethyl formate, A., 227.
 Adinolfi, E., interference method for determining the anomalous absorption of concentrated solutions, A., 1123.
 Adkins, H. See Gartung, W. H.
 Adkins, L. R. See Morris, F. J.
 Adler, F., pattern printing on cloth with the help of wax, (P.), B., 407.
 Adler, O., preparation of sepiamelanin from sepiamelanic acid, A., 696.
 Adlersberg, D., and Taubenhaus, M., blood-ammonia, A., 369.
 Adolph, G., Pietzsch, A., and Redlich, B., production of gas- and liquid-tight vessels and pipes, (P.), B., 288.
 Adolphi, W., manufacture of ammonium chloride [from gas liquor], B., 651.
 Adova, A. N. See Smorodincev, J. A.
 Aeschlimann, J. A., relative stability of quinoline and indolinone rings, A., 256.
 Aeschlimann, J. A., reaction between Grignard reagents and 10-chlorophenoxarsine or 10-chloro-5:10-dihydrophenarsazine, A., 368.
 Agathon, O. See Briner, E.
 Agde, G., and Barkholt, H., manufacture of copper sulphate. II. The system copper sulphate-sulphuric acid-water, B., 388.
 Agde, G., and Holtmann, H., specific heats of the systems sulphuric acid-water, ferrous sulphate-water, and sulphuric acid-ferrous sulphate-water, A., 113.
 Agde, G., and Krause, H. F., behaviour of fluorides in glasses and enamels. I and III., B., 483, 702.
 Agde, G., Krause, H. F., and Lehmann, W. M., behaviour of fluorides in glasses and enamels. II., B., 654.
 Agde, G., and Lyncker, L. von, reactivity of coke constituents, B., 929.
 Agde, G., and Schmitt, H., apparatus for measuring the adsorption of a gas at constant pressure, A., 642.
 reactivity of coke, B., 401.
 determination of the reducing power of coke, B., 833.
 reducing power of coke, B., 834.
 causes of different reactivity of carbonisation products, B., 930.
 Agde, G., Schmitt, H., and Lyncker, L. von, apparatus for maintaining a constant pressure in gas-collecting vessels and measuring burettes, A., 641.
 Agerup, J., magnesite cement, (P.), B., 723.
 Agnew, F. E., and Brotherton, M. H., centrifugal impact pulveriser, (P.), B., 689.
 Agnoli, R., physiological antagonism between calcium ions and ergotamine, A., 1220.
 Agopian, L. A., process for obtaining concentrated vitamin preparations, B., 426.
 production of concentrated preparations of vitamin-O, (P.), B., 615.
 Agthe, C. A., washing or emulsifying agents [for textile material], (P.), B., 872.
 Ahe, F. H. von der. See Williams, R. J.
 Ahlbom, L. See Hägglund, E.
 Aichner, F. X. See Gehrke, M.
 Aiken, C. W., evaporator, (P.), B., 2, 352.
 Ainslee, H. B. See Moehlig, R. C.
 Air Liquide. See L'Air Liquide.
 Air Reduction Co., Inc. See Schlitt, J. L., Van Nuys, C. C., and Wilkinson, W.
 Aisenberg, A. See Trefiliev, I.
 Aisenberg, G., relation between the drying of soap flakes and their content of unsaturated fatty acids, B., 660.
 Aitken, R. S., and Kay, H. D., ultra-filter, A., 955.
 Ajax Electrothermic Corporation, and Northrup, E. F., induction electric furnaces, (P.), B., 492.
 Akabori, S., condensation of dimethylbarbituric acid with aldehydes; colour reaction of furfuraldehydes, A., 1087.
 Akatsuka, H., effect of cooling on muscle. I. Biochemistry of frozen fish. II. Creatino and creatinine in albino-rat muscle, A., 900.
 Aken, J. S. A. J. M. van. See Waterman, H. I.
 Åkerlöf, G., decomposition of diacetone alcohol [isohexan-8-ol- β -one] in alkali hydroxide-alkali salt solutions, A., 116.
 solubility of strong, simple electrolytes in water, A., 198.
 Akiya, M., inorganic salt content of blood and the acid-alkali equilibrium of blood in fever. I and II., A., 789.
 Akiyama, K. See Tanaka, Y.
 Aktiebolaget Båsta, production of yeast, (P.), B., 921.
 Aktiebolaget Ferrolegeringar. See Berlin, D. W.
 Aktiebolaget Separator, edge filters, (P.), B., 352.
 [connexions for spouts of] centrifugal separator installations, (P.), B., 545.
 driving device for centrifugal separators, (P.), B., 624.
 Aktiebolaget Separator, and McBerty, F. H., effecting reaction between liquids tending to form tight emulsions, (P.), B., 35.
 Aktiebolaget Separator, and Miller, T. H., centrifuges, particularly for the purification of oil, (P.), B., 961.
 Aktien-Gesellschaft für Anilin-Fabrikation, production of fast dyes on the fibre, (P.), B., 104.
 insulating high-tension electric currents, (P.), B., 303.
 preparation of vanillin, (P.), B., 380.
 insecticide, (P.), B., 542.
 dyeing and printing cellulose acetate silks, (P.), B., 964.
 Aktien-Gesellschaft für Anilin-Fabrikation. See also I. G. Farbenind. A.-G.

- Aktien-Gesellschaft für Bergbau, Blei- & Zinkfabrikation zu Stolberg & in Westfalen, and Darius, G., separation of antimony and lead from mixtures of the oxygen compounds, (P.), B., 224.
- Aktien-Gesellschaft Brown, Boveri & Co., evaporators for steam power plants, (P.), B., 32.
- electrode carriers for electric furnaces, (P.), B., 493.
- [carriers for heating elements of] electric resistance annealing furnaces, (P.), B., 528.
- [sealing means for] electric smelting furnaces, (P.), B., 561.
- electric furnace for heating gases at high temperatures, (P.), B., 561.
- condensing plants, (P.), B., 927.
- [insulation of the electrodes of] electric [smelting] furnaces, (P.), B., 944.
- Aktien-Gesellschaft Brown, Boveri & Co. See also Kubler, J.
- Aktien-Gesellschaft für Chemische Produkte vorm. H. Scheide-mandel, Sakom, D., and Askenasy, P., conversion of material other than glue into small particles, (P.), B., 218.
- Aktien-Gesellschaft für Chemische Produkte vorm. H. Scheide-mandel. See also Wachtel, W.
- Aktien-Gesellschaft Cilander, production of stiff fabrics which stand washing, (P.), B., 406.
- Aktien-Gesellschaft Kesselschmiede Richterswil. See Gyax, P.
- Aktien-Gesellschaft Lignose, production of finely-crystalline lead or other heavy-metal azides, (P.), B., 798.
- Aktien-Gesellschaft für Petroleumindustrie, and Herrmann, M., motor fuel mixtures, (P.), B., 467.
- Aktien-Gesellschaft für Steinindustrie, and Braun, W., manu-facture of mortar, (P.), B., 190.
- Aktien-Gesellschaft für Stickstoffdünger, purifying boiler feed water, (P.), B., 430.
- Aktien Gesellschaft für Zellstoff- & Papierfabrikation, production of sulphurous acid for the manufacture of sulphite solutions, (P.), B., 777.
- Aktieselskabet de Forenede Bryggerier, pasteurisation of liquids containing gases, (P.), B., 801.
- Aktieselskabet R. Pictet, & F. Tharaldsen, production of cellulose pulp, (P.), B., 138.
- Aktieselskabet Raeders Elektroglasovn. See Raeder, J. K. B.
- Aktieselskabet Forsøksdrift, extraction of oil from the blubber of marine animals, (P.), B., 915.
- Aktieselskabet Krystal, separation of soluble substances, (P.), B., 463.
- Aktieselskabet Krystal, and Jeremiassen, F., refining or separating soluble substances [rock-salt] by crystallisation, (P.), B., 11.
- Aktieselskabet Krystal. See also Isaachsen, I.
- Aktieselskabet Norsk Aluminium Co., manufacture of aluminium oxide, (P.), B., 555.
- Aktieselskabet Norsk Staal (Elektrisk-Gas-Reduktion), reduction of metal oxides, especially iron ores, (P.), B., 527.
- electric arc for treating gases, (P.), B., 820.
- Aktieselskabet Norsk Staal (Elektrisk-Gas-Reduktion). See also Edwin, E.
- Al, J. See Scheffer, F. E. C.
- Alaska Pulp & Paper Co. See Keenan, C. J.
- Alben, A. O. See Clark, N. A.
- Albert, K. See Alberti, E.
- Albert, R. See Alberti, E.
- Alberti, B., homologous naphthols, their oxidation and hydrogen-ation products, A., 145.
- Alberti, E., Thielmann, H., Begas, M., Albert, R., and Albert, K. (Ver. Werke Dr. R. Alberti & Co.), extraction of zinc from zinc-iron-siliceous slags, (P.), B., 606.
- Albrecht, H. See Kuhn, R.
- Albrecht, O. See Kuhn, R.
- Albricci, M. A., Italian petit-grain oils, B., 457.
- Albright, A. R. See Engelmann, M.
- Alder, K. See Diels, O.
- Alders, N., determination of the nucleic acid content of organs, A., 371.
- sericin, A., 582.
- Alders, N., Chiari, H., and Laszlo, D., glycolytic power of cell-free extracts from tumour and other tissues, A., 274.
- Aldington, J. N. See Siemens & English Electric Lamp Co., Ltd.
- Aldridge, J. G. W. See Matthews, F. G.
- Aleksandrov, V. G., and Makarevskaya, E. A., plastic substances in stems of grape vines growing in Kakheta, A., 797.
- Alessandri, L., reactions of nitroso-derivatives with unsaturated compounds. V. Nitronic, isotogenic, and indolic derivatives of o-nitroacetylenes, A., 572.
- Alessandri, L., and Passerini, M., [compounds of the pyrrole and indole series and isomerisations in these series], A., 466.
- Atleter, F., and Strasser, L., [filling lead] accumulators [with pulpy electrolyte], (P.), B., 583.
- Alexander, D. B. W., manufacture of bituminous products, etc., (P.), B., 39, 901*.
- Alexander, H. M., cleaning filtering medium employed in the separation of mixtures of liquids, e.g., oil and water, or mixtures of liquids and solids, (P.), B., 719.
- Alexander, J., kinetic activity, oriented adsorption, and molecular deformation as factors in catalysis, A., 528.
- Alexander, J. E., method of drying material, (P.), B., 896.
- Alexander, P., classification and testing of regenerated rubber, B., 229.
- Alexander, P. P. See British Thomson-Houston Co., Ltd.
- Alexander, S. See Empson Centrifugals, Ltd.
- Alexander, W., purifying steam, vapours, and gases centrifugally, (P.), B., 65.
- apparatus for purifying liquids centrifugally, (P.), B., 433.
- Alexandrov, W., ionised hydrogen molecule and [Schrödinger's] wave mechanics, A., 5, 394.
- Alexandrova, Z. P. See Nametkin, S. S.
- Alexeev, A. I., catalase content of blood at high altitudes, A., 893.
- Alexeev, D. W., and Polukarov, M. N., effect of electrolytic hydrogen on the tensile strength of steel in the presence of other elements, B., 222.
- Algemeene Norit Maatschappij, manufacture of highly active charcoal, (P.), B., 210.
- reactivation of charcoal, (P.), B., 467.
- Alicante, M. M., nitrifying power of some Philippine soils, B., 308.
- Allaire, H. See Javillier, M.
- Allam, F. See Guthrie, A.
- Allan, J. McN. See Cammell, Laird & Co.
- Allan, W. G., electrolytic apparatus and electrodes therefor, (P.), B., 561.
- electrolytic apparatus [for electrolysis of water], (P.), B., 786.
- Allardye, W. J., confirmatory test for aluminium, A., 953.
- Allbright-Nell Co., and Laabs, W., rendering solids of animal origin containing fat and oil, (P.), B., 495*.
- "Allchemin" Allgemeine Chemische Industrie Aktien-Gesell-schaft, and Lichtenstern, R., impregnation of unpaved roads, (P.), B., 190.
- Alleman, G., and Sun Oil Co., manufacture of a mineral oil derivative, (P.), B., 962.
- Alleman, E. See Baur, E.
- Allen, A. W. See Herman, J.
- Allen, C. F. H., some reactions of δ -ketonic nitriles. II., A., 561.
- Allen, C. F. H., and Bridgess, M. P., chloromethylacetophenones, A., 878.
- Allen, C. F. H., and Rosener, H. B., synthesis of $\alpha\beta$ -diacylstyrenes and their reaction with hydrogen bromide, A., 971.
- Allen, C. H., process and apparatus for making paper, etc., (P.), B., 296.
- Allen, H. S., spinning electrons and protons, A., 183.
- Allen, H. S., and Sandeman, I., bands in the secondary spectrum of hydrogen. I. and II., A., 394, 1004.
- Allen, (Miss) N. C. B., crystal structure of benzil, A., 612.
- Allen, R. D., embrittlement of black-heart malleable iron, B., 14.
- Allen, R. W. See Bogert, M. T.
- Allen, S. G. See Davis, F. W.
- Allen, S. J. M., absorption of X-rays from 0.08 to 4.0 Å., A., 83.
- Allen, W. H., regeneration of caustic alkali solutions, (P.), B., 937.
- Allen & Co., E. See Everitt, C. K.
- Alley, J. D. See Metropolitan-Vickers Electrical Co., Ltd.
- Algeier, R. J. See Williams, J. W.
- Allgemeine Elektrizitäts Gesellschaft. See International General Electric Co., Inc.
- Allgemeine Gesellschaft für Chemische Industrie m.b.H., improve-ment in the Edelmann process, (P.), B., 210.
- splitting of natural oils and fats, (P.), B., 258.
- eliminating water from liquid sulphur dioxide, (P.), B., 365.
- refining mineral oils with liquid sulphur dioxide, (P.), B., 386, 771.
- converting high-boiling hydrocarbons, which have been freed from the substances soluble in liquid sulphurous acid, into low-boiling hydrocarbons by means of aluminium chloride, (P.), B., 595, 645.
- purification of liquid hydrocarbons, (P.), B., 596*.
- expelling sulphur dioxide gases from mixtures of sulphur dioxide gases and oil, (P.), B., 722.

- Allgemeine Gesellschaft für Chemische Industrie m.b.H., continuous treatment of hydrocarbons [with liquid sulphur dioxide], (P.), B., 806.
- Allgemeine Kommerzges. A.-G., and Mannesmann, A., separating the solid and liquid constituents of a material [peat] from one another, (P.), B., 466.
- treatment of peat, (P.), B., 466.
- Allgemeine Vergasungs-Gesellschaft m.b.H., purifying, cooling, mixing, absorbing gas, air, vapours, etc., (P.), B., 241.
- Allied Process Corporation. See Czochralski, J., and Weidmann, H.
- Allien, V. S., and Darco Sales Corporation, uniform revivification of activated carbon, (P.), B., 6.
- Allin, (Miss) E. J., and Iretton, H. J. C., under-water spark spectra [of beryllium, gold, molybdenum, tantalum, and tungsten], A., 801.
- Allin, K. D. See Harding, V. J.
- Alling, H. L., and Valentine, W. G., quantitative microscopic analysis [of rocks], A., 846.
- Alliott, E. A., effect of acids on the mechanical strength of timber, B., 31.
- Alliott, E. A., Hatfield, A. E., and Achille Serre, Ltd., filtration, (P.), B., 511.
- Alliott, E. A., and Manlove, Alliott & Co., Ltd., timing devices for centrifugal separators, (P.), B., 321.
- Allis, W. P., and Müller, H., wave theory of the electron, A., 606.
- Allis-Chalmers Manufacturing Co., and Newhouse, R. C., comminuting mill, (P.), B., 353*.
- crushers, (P.), B., 831.
- Allis-Chalmers Manufacturing Co. See also Greenfield, R. C., and Newhouse, R. C.
- Allison, F., influence of X-rays on time lags of the Faraday effect and on optical rotation in liquids, A., 1130.
- Allison, F. See also Beams, J. W.
- Allison, F. E., effect of applications of [calcium] cyanamide on the nitrate content of field soils, B., 886.
- nitrate assimilation by soil micro-organisms in relation to available energy supply, B., 972.
- Allison, S. K., relative intensities of X-ray lines in the L-spectrum of thorium, A., 1000.
- Allman, P., Morris, H. N., and Marlor, L. H., dielectric covering for electric wires, cables, etc., (P.), B., 786.
- production of substances containing rubber and cellulose derivatives, (P.), B., 789.
- Allmand, A. J., occurrence of points of inflexion in the concentration-vapour pressure curves of aqueous solutions of certain electrolytes, A., 1029.
- Allmand, A. J., and Burrage, L. J., electrometric study of the system potassium chloride-lead chloride-water at 25°, A., 1030.
- Allmand, A. J., and Cocks, H. C., electrolysis of potassium chloride solutions by alternating currents, A., 1152.
- Allmand, A. J., Cunliffe, P. W., and Maddison, R. E. W., photo-decomposition of chlorine water and of aqueous hypochlorous acid solutions. II., A., 427.
- Allmand, A. J., and Maddison, R. E. W., alleged retardation of certain reactions by light, A., 428.
- Allmand, A. J., and Reeve, L., photochemical decomposition of aqueous formic acid solutions, A., 29.
- photochemical decomposition of aqueous oxalic acid solutions, A., 29.
- Allolio, R. See Bredig, G.
- Allpress, C. F., Haworth, W. N., and Inkster, J. J., sugar carbonates. III. Derivatives of γ -methylfructoside, γ -ethylfructoside, and normal methylfructoside, A., 752.
- Almqvist, J. A., nature of the catalyst surface and the effect of promoters, A., 29.
- Almqvist, J. A., and Black, C. A., poisoning action of oxygen on iron catalysts for ammonia synthesis, A., 29.
- Almqvist, J. A., and Crittenden, E. D., pure iron and promoted iron catalysts for ammonia synthesis, B., 72.
- Almy, L. H., decomposition of free and combined cystine, with special reference to certain effects produced by heating fish flesh, B., 922.
- Almy, L. H., and James, L. H., formation of volatile sulphur compounds by bacteria, A., 593.
- Aloisi, P., composition and properties of rodonites, A., 1164.
- Alphen, J. van, action of trichloroacetic acid on phenols, A., 460.
- migration of the triphenylmethyl group in phenols, A., 660.
- migration of the triphenylmethyl group in aniline, and o- and p-toluidines, A., 867.
- Alsberg, C. L. See Gottenberg, M. J.
- Alsberg, J., and Heller & Co., B., curing meats, (P.), B., 763.
- Alsberg, J., Ralph, P. J., and Alsberg, J., apparatus for analysing [furnace] gases, (P.), B., 768*.
- Alt, A. See Tillmans, J.
- Altehdjian, G., combustible liquids of high organic sulphur content as a source of anti-detonators, B., 34.
- Altenkirch, E., and Siemens-Schuckertwerke G.m.b.H., absorption method and apparatus, (P.), B., 177*.
- refrigerating apparatus of the absorption type, (P.), B., 177*.
- Alterhoff, W., dyeing union materials consisting of cotton and [viscose] artificial silk, B., 775.
- Althammer, W. See Kölichen, K., and Küpper, A.
- Alther, J. C. See Egloff, G.
- Altwegg, J., and Société Chimique des Usines du Rhône, manufacture of calcium arsenate, (P.), B., 108*.
- Aluminum Co. of America, and Barnitt, J. B., production of sodium aluminate, (P.), B., 483*.
- Aluminum Co. of America, and Dix, E. H., jun., production of corrosion-resistant articles, (P.), B., 560.
- Aluminum Co. of America, and Horsfield, B. T., refractory articles, (P.), B., 300.
- treatment of metallic oxides, (P.), B., 682.
- Aluminum Co. of America. See also Barnitt, J. B., Pacz, A., Pedersen, H., and Stay, T. D.
- Alvarado, A. M. See Voorhies, A.
- Alway, F. J., power of soils to absorb water from air, B., 262.
- Alway, F. J., Shaw, W. M., and Methley, W. J., phosphoric acid content of crops grown on peat soils as an index of the fertilisation received or required, B., 170.
- Alzner, A. F., colouring of stoneware with cobalt sulphate, B., 332.
- Amagat, (Mlle.) P., preparation of α -hydrindone and α -ketotetrahydronaphthalene, A., 970.
- Amagat, (Mlle.) P. See also Ramart, (Mme.) P.
- Amalgamated Dyestuffs & Chemical Works, Inc. See Fletcher, R. J.
- Amann, A., Fonrobert, E., and Chemische Fabrik K. Albert, G.m.b.H., condensation product of ketones and phenols, (P.), B., 148.
- condensation products from mono- and di-cyclic phenols and aldehydes, (P.), B., 148.
- Amann, A. See also Chemische Fabrik K. Albert G.m.b.H.
- Ambard, L., apparatus for rapid dialysis, A., 388.
- Ambard, L., and Chretien, A., isotopes of chlorine in urine, A., 169.
- Ambard, L., and Schmid, F., excitability of nervous centres in terms of their hydrochloric acid content, A., 480.
- Ambard, L., Schmid, F., and Arnovljevitich, M., effect of neutral salts on the acid charge of certain substances, A., 476.
- Ambard, R., continuous treatment of minerals containing bitumen or petroleum, (P.), B., 836.
- Ambler, J. A., amino-acids and related compounds in sugar products, B., 920.
- Ambler, J. A., and Scanlan, J. T., naphthalenesulphonic acids. VII. Hydrolysis of naphthalene-1 : 6-disulphonic acid, B., 324.
- Ambruster, H. W., method of making arsenic acid, (P.), B., 42.
- Ambühl, E., through dyeing of wood, (P.), B., 703.
- Amelung, H., acid production by *Aspergillus niger*, A., 703.
- Amen, N. C., cement for fabrics, (P.), B., 9.
- Amen, N. C., and Randolph, H. H., fabric cement, (P.), B., 839*.
- Amend, O. P., cracking [hydrocarbon] oils, (P.), B., 274.
- Amende, F. See New Liverpool Rubber Co., Ltd.
- American Aggregate Co. See Hayde, S. J.
- American Brake Shoe & Foundry Co. See Pogue, R. B.
- American Brass Co. See Bassett, W. H., jun., and Davis, C. H.
- American Cellulose & Chemical Manufacturing Co., Ltd., printing of fabrics and articles made of or containing cellulose esters or others, (P.), B., 185.
- American Cellulose & Chemical Manufacturing Co., Ltd. See also Bader, W., Dreyfus, C., and Ellis, G. H.
- American Chemical Society Committee, standard methods for the sampling and analysis of commercial fats and oils, B., 117.
- American Coalinoil Corporation. See Greenstreet, C. J.
- American Coke & Chemical Co. See Kus, T. G.
- American Cyanamid Co. See Barsky, G., Buchanan, G. H., Christmann, L. J., Cooper, K. F., Freise, F. W., Landis, W. S., Moffett, E. C., and Osborne, J. L.
- American Dressler Tunnel Kilns, Inc. See Crawford, G. E., Dressler, C., and Meehan, P. A.
- American Dry Cleaning Co., dry cleaning, (P.), B., 579.
- American Encaustic Tiling Co., Ltd. See Prouty, T. C.
- American Gasaccumulator Co. See Dalen, G.

- American Glue Co. See Campbell, *C. H.*
 American Hardware Corporation and Sterling Blower Co. See Christoph, *G. W.*
 American Insulator Corporation. See Haxham, *T. S.*
 American Lakes Paper Co. See Kress, *O.*
 American Leather Chemists' Association, report of the committee on the revision of the official method for sampling tanning materials, B., 791.
 report of the committee on a provisional method for the separation of pyrogallol and pyrocatechol tannins for 1926—1927, B., 791.
 American Lurgi Corporation. See Müller, *G.*
 American Machine & Foundry Co., method of coating metal by dipping, (P.), B., 819.
 coating metals with metal, (P.), B., 848.
 American Magnesium Corporation, refining calcium and magnesium and their alloys, (P.), B., 490.
 American Meter Co. See Linderman, *G. B., jun.*
 American Nuplax Corporation. See Homberg, *F.*
 American Platinum Works. See Ledig, *K. K.*
 American Protein Corporation. See Bunker, *J. W. M.*
 American Refractories Institute, tentative specifications for clay firebrick for malleable furnaces with removable bungs and for annealing ovens, B., 300.
 American Rubber Co. See Teague, *M. C.*
 American Smelting & Refining Co., recovery of zinc and zinc compounds, (P.), B., 225*.
 recovery of zinc from dross obtained in melting zinc during refining, (P.), B., 448.
 American Smelting & Refining Co. See also Betterton, *J. O.*, Chisholm, *O. P.*, and Cregan, *J. F.*
 American Society for Testing Materials, tentative standards, 1926, B., 575.
 Ames, *J. W.*, and Gerdel, *R. W.*, potassium content of plants as an indicator of available supply in soil, B., 587.
 seedling plant method of determining soil nutrient deficiency, B., 662.
 Ames, *L. A.* See Fieser, *L. F.*
 Ames, *R.*, apparatus for automatically governing the discharge of one liquid into another in proportion to the flow, (P.), B., 321.
 tanks and apparatus for aerating sewage and other foul liquids, (P.), B., 510.
 Ames, *R.*, Bolton, *J.*, and Mills, *M. W.*, circulating and aerating sewage, (P.), B., 30.
 Ames, *R.* See also Mills, *M. W.*
 Amick, *O. A.*, copper number for dextrose, A., 1213.
 Amin, *B. M.* See Sen, *J. N.*
 Amirthalingam, *C.* See Orton, *J. H.*
 Ammann, *E.* See Oberhoffer, *P.*
 Ammon, *C.*, addition of waste gases from industrial furnaces to a producer blast, B., 131.
 Ammon, *R.* See Rona, *P.*
 Amoureux, *G.* See Berthelot, *A.*
 Amschler, *J. W.*, application of Löwe-Zeiss interferometer to investigation of blood, A., 69.
 Amundsen, *I.*, production of cold, (P.), B., 592, 898.
 Amy, *L.* See Bayle, *E.*
 Anacker, *E.* See Steven, *L. O.*
 Anaconda Copper Mining Co. See Larison, *E. L.*
 Anagnostopoulos. See Ramart, (*Mme.*) *P.*
 Ancelle, *R.* See Vila, *A.*
 Ancienne Maison Gerbaud Société Anonyme, clarification of white wine, (P.), B., 953.
 Anciens Établissements Barbier, Bénard, & Turenne (Société Anonyme), process and apparatus for the manufacture of oil gas, (P.), B., 211*.
 Anciens Établissements J. Juthy. See Scarpa, *F.*
 Andant, *A.*, application of fluorescence spectrography to the examination of organic compounds, A., 538.
 application of the spectrography of fluorescence to the examination of powdered alkaloids, A., 1124.
 Andant, *A.*, and Rousseau, *E.*, photolysis of hydrogen cyanide by the total and filtered radiations of the mercury arc, A., 738.
 resonance power of some metallic salts in solutions irradiated by the filtered light of the mercury arc, A., 917.
 Andauer, *M.*, absolute values of electrode potentials, A., 316.
 Anderau, *W.* See Fierz-David, *H. E.*
 Anderegg, *F. O.*, and Daubenspeck, *G. W.*, electrometric titration of some aluminium solutions, A., 640.
 Anderegg, *L. F.* See Nelson, *V. E.*
 Andersag, *H.* See Fischer, *Hans.*
 Andersen, *F. J. E.*, Siesbye, *I.*, and Weitzmann, *N. J. H.* (Dansk Chemoterapeutisk Selskab ved Andersen, Siesbye, & Weitzmann), production of complex aurothiosulphate compounds, (P.), B., 573.
 Andersin, *M.* See Wahl, *W.*
 Anderson, *E.*, and Sands, *L.*, composition of mesquite gum: isolation of *D*-galactose and *L*-arabinose, B., 152.
 Anderson, *E. A.* See New Jersey Zinc Co.
 Anderson, *H. S.*, gyratory crusher, (P.), B., 159.
 Anderson, *J.* See Kreisinger, *H.*
 Anderson, *J. A.*, and Smith, *Sinclair*, general characteristics of electrically exploded wires, A., 605.
 Anderson, *J. S.* See Karpinsky, *S.*
 Anderson, *L.*, and Boots Pure Drug Co., Ltd., manufacture of sugar derivatives of 3:3'-diamino-4:4'-dihydroxyarsenobenzene, (P.), B., 173*.
 Anderson, *L. J.* See Stephens, *F. G. C.*
 Anderson, *M. S.*, and Mattson, *S.*, properties of the colloidal soil material, B., 588.
 Anderson, *R. J.*, properties of cholesterol from different sources, A., 457.
 separation of lipin fractions from tubercle bacilli; phosphatide fraction of tubercle bacilli, A., 1114.
 Anderson, *R. J.*, and Nabenhauer, *F. P.*, grape pigments. IV. Anthocyanins of Isabella grapes, A., 61.
 Anderson, *R. J.*, Nabenhauer, *F. P.*, and Shriner, *R. L.*, distribution of dihydrositosterol in plant fats, A., 388.
 Anderson, *R. J.*, and Shriner, *R. L.*, reduction products of plant sterols, A., 457.
 phytosterols of corn [maize] oil, B., 48.
 Anderson, *R. J.*, Shriner, *R. L.*, and Burr, *G. O.*, phytosterols of wheat-germ oil, B., 49.
 Anderson, *R. J.* See also Hess, *A. F.*, Nabenhauer, *F. P.*, and Shriner, *R. L.*
 Anderson, *R. W.*, [slabs for] heat insulation, (P.), B., 898.
 Anderson, *W.*, preservation of stone, brick, and like work, (P.), B., 525.
 Anderson, *W. E.* See Mendel, *L. B.*
 Anderson, *W. T.* See Macht, *D. I.*
 Anderson-Barngrover Manufacturing Co., treatment of condensed or evaporated milk, (P.), B., 426.
 André, *B.*, source of trilaurin: Mahuba seed, *Acrodictidium Mahuba*, A. J. Sampaio, A., 388.
 André, *E.*, and Canal, *H.*, oil from *Mesoplon bidens*, A., 168.
 physical and chemical characteristics of some grape seed oils from France and Algiers, B., 944.
 marine animal oils. I. Squalene and spinacene, B., 416.
 André, *E.*, and François, (*Mlle.*) *M. T.*, marine animal oils; sperm-whale oil and spermaceti, B., 584.
 marine animal oils; aliphatic unsaturated alcohols in spermaceti oil, B., 706.
 oleyl alcohol and its derivatives; preparation of oleicerin, elaidicerin, and stearyl alcohol, A., 957.
 André, *G.*, and Demoussy, *E.*, distribution of potassium and sodium in plants, A., 798, 1228*.
 André, *H.*, electrical properties of some metallic compounds, A., 402.
 Andreasch, *R.*, acetoguanaminesulphonic acid and related substances, A., 864.
 Andreev, *N. N.*, sensitising of hydrophobe colloids by proteins, A., 414.
 investigation of colloidal systems, A., 1024.
 Andreevski, *J.* See Ipatiev, *V. N.*
 Andresen, *G.* See Brahm, *C.*
 Andresen, *J.*, apparatus for separating oil, benzol, and similar liquids from waste water, (P.), B., 291.
 Andresen, *P. H.*, inhibitory effect of metallic salts on bacterial growth. I. Silver salts, A., 1110.
 Andrew, *J. H.*, and Dickie, *H. A.*, Acl range in special steels, B., 486.
 Andrew, *J. H.*, Fisher, *M. S.*, and Robertson, *J. M.*, properties of some nickel-chromium-molybdenum steels, B., 486.
 Andrew, *R. E.*, and Gorman, *P.*, standard spray mixtures, B., 198.
 Andrew, *R. H.* See Fenger, *F.*
 Andrews, *C. E.* See Canon, *F. A.*
 Andrews, *D. H.* See Keesom, *W. H.*
 Andrews, *E. F.*, and Andrews-Hammond Corporation, electrode for rectifiers and electrolytic condensers, (P.), B., 820.

- Andrews, J. C., and Worley, F. P., mutarotation. II. Relative velocities of mutarotation of α - and β -glucose: effect of acid and salt, A., 736.
- Andrews, J. C. See also Worley, F. P.
- Andrews, L., grading of powdered material by elutriation or by hydraulic classification, (P.), B., 159.
- Andrews, L. W., polariscopy of molybdatomalates, A., 543.
- uranatomalate complex, A., 543.
- Andrews, (Miss) M. R., vapour pressure of naphthalene at low temperatures, A., 13.
- Andrews, S., and Schmidt, C. L. A., titration curves of taurine and of cysteic acid, A., 827.
- Andrews-Hammond Corporation. See Andrews, E. F.
- Andrews Lead Co., Inc. See Rohmer, G. E.
- Andrich, K., and Roessler & Hasslacher Chemical Co., preparation of alkali cyanide solutions, (P.), B., 218.
- Andrich, K. See also Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.
- Andrieux, L., electrolysis in the fused state of oxygenated compounds; preparation of metals and borates, A., 216.
- preparation of boron, A., 844.
- Andrusiani, M., apparatus for recovering alcohol from vapours generated in bakers' ovens, (P.), B., 504*.
- Andrussov, L., catalytic reduction of nitric oxide and oxidation of ammonia. IV., A., 321.
- catalytic combustion of ammonia in presence of alkaline surfaces, A., 1039.
- rapid catalytic processes in currents of gases and the oxidation of ammonia. V., A., 1039.
- catalytic oxidation of ammonia. III., B., 217.
- Angel, T. H. See Hinkel, L. E.
- Angelescu, M., equilibrium between two liquid phases. IV. System *o*-toluidine-lactic acid-water, A., 1030.
- Angeletti, A., separation of titanium from uranium, A., 333.
- probable combinations of acetylsalicylic acid with products of pharmaceutical use: cryoscopic researches, A., 938.
- binary pharmaceutical mixtures, A., 830.
- Crismar test for essential oils, B., 506.
- Angeli, A., azides, A., 1063.
- Angeli, A., and Bigiavi, D., the two *p*-nitroazoxybenzenes, A., 1062.
- Angell, C. M., and Vesta Battery Corporation, manufacture of storage batteries, (P.), B., 370.
- Angern, O. See Pfeiffer, P.
- Anglo-American Oil Co. See Beaumont, E. G. E.
- Anglo-California Trust Co. See Minor, C. G.
- Angus, H. T., and Cobb, J. W., influence of atmosphere and temperature on scaling of steel. II. Prevention of scaling by hydrogen and carbon monoxide, B., 367.
- Angus, L. H., and Dawson, H. M., nature of the solution of strong acids from the point of view of the salt effect; system nitric acid-sodium nitrate, A., 111.
- Anode Rubber Co., Ltd., production of homogeneous rubber deposits from rubber latex, (P.), B., 533.
- production of rubber goods directly from [rubber] latex, (P.), B., 533.
- manufacture of rubber goods from rubber dispersions by electrophoretic means, (P.), B., 853.
- Anode Rubber Co., Ltd., Klein, P., and Szegvári, A., manufacture of rubber goods, (P.), B., 533.
- Anschütz, L., and Broeker, W., dioxan as solvent, particularly for determinations of mol. wt., A., 131.
- aromatic derivatives of the hypothetical orthophosphoric acid $P(OH)_3$, A., 146.
- phosphorus pyrocatechol oxychloride and *o*-phenylene phosphate, A., 661.
- Anschütz, L., Wenger, F., Boedecker, H., and Broeker, W., aromatic derivatives of phosphoric acid and of the hypothetical orthophosphoric acid; hetero-rings containing phosphorus, A., 663.
- Anschütz, R., thermal decomposition of aryl esters of fumaric and cinnamic acids into *s*-diarylethylenes, A., 750.
- apparatus for determining high m. p., A., 850.
- Anschütz, R., and Cürten, T., rule for direct formation of free acid chlorides by action of phosphorus pentachloride on 6-substituted phenol-*o*-sulphonic acids, A., 1183.
- Anslow, W. K., and King, H., neutral salt additive compounds of alkaline-earth glutamates and aspartates, A., 1175.
- Antipine, P. F. See Hyniski, V. P.
- Anti-Scale Corporation. See Creighton, H. J.
- Antonov, G. N., molecular association and mechanism of separation into two phases, A., 304.
- Aoki, M., production of alcohol in the animal body. II. Amount of alcohol in the blood and liver of asphyxiated animals, A., 171.
- Aoyama, S., ruthenium tetrachloride, A., 636.
- Aoyama, S., Kimura, K., and Nishina, Y., X-ray absorption spectra and chemical linking, A., 999.
- Aoyama, S. See also Wartenberg, H. von.
- Apard, A., nitro-derivatives of *s*-diphenyldimethyl- and *s*-diphenyldiethyl-carbamides (centralites), A., 962.
- Apotheke, A. See Rupe, H.
- Apparatebau Aktien-Gesellschaft Bühring, apparatus for the purification and dehydration of fats, oils, and hydrocarbons, (P.), B., 182.
- Appareils & Evaporateurs Kestner, recovery of caustic soda from the residual lyes after the manufacture of artificial silk, (P.), B., 813.
- Appel, R., electrolytic separation of metallic chromium, (P.), B., 256.
- Applebey, M. P., and Carter, C., manufacture of solid sodium hypochlorite preparations, (P.), B., 701.
- Applebey, M. P., and Lanyon, J. A., oxidation of ammonium sulphide; [removal of sulphur from gas], B., 131.
- Appleby, E. G. See Bentley, G. H.
- Appleman, C. O., percentage of carbon dioxide in soil air, B., 951.
- Appleman, C. O., and Conrad, C. M., pectic constituents of peaches and their relation to softening of the fruit, A., 704.
- Appleman, C. O., and Miller, E. V., chemical and physiological study of maturity in potatoes, B., 22.
- Appleyard, E. T. S., action of magnetic fields on the refractive index of gaseous carbon dioxide, A., 294.
- Appling, J. W., and Reedy, J. H., reduction of stannic chloride by metals, A., 848.
- Aquazone Corporation. See Shook, A. M.
- Arakatsu, B., reversal of lines in the explosion spectrum of lead, A., 286.
- Arakatsu, B., and Shoda, M., self-reversal of lines in the explosion spectrum of tin, A., 2.
- Arbusov, A. E., phosphinocarboxylic acids, A., 756.
- Arbusov, A. E., and Dunin, A. A., phosphinocarboxylic acids, A., 346.
- Arbusov, B. A., composition of the white resin of *Pinus silvestris*, B., 971.
- Arcay, G. P., and Fallot, M., determination of the coefficient of magnetisation of certain liquids, A., 1131.
- Archer, C. T. See Gregory, H.
- Archer, R. L. See Spalding, J. E.
- Archer, R. S., hardening of metals, B., 113.
- Archer Rubber Co. See Emery, H. W.
- Archibald, E. H., and Ure, W., viscosity of ether at low temperatures, A., 404.
- vapour pressure of acetone at low temperatures, A., 818.
- Archibald, R. G., sulphuric acid treatment of cotton seed, B., 150.
- Archdagh, E. G. R., Barbour, A. D., McClellan, G. E., and McBride, E. W., distillation of calcium acetate, B., 73.
- Arena, M., action of rare-earth [and other] elements on plants, A., 1225.
- Arent, A., and Arent Laboratories, Inc., A., preservative treatment of wood, (P.), B., 14.
- Arent Laboratories, Inc., A. See Arent, A.
- Arentz, F. B., and United States Industrial Alcohol Co., revivifying process for carbons, (P.), B., 290.
- Arentz, F. B. See also United States Industrial Alcohol Co.
- Argentographica (U.S.A.), Ltd. See De Sperati, M.
- Aridor Co. See Moyer, P. S.
- Ariga, T., photochemical reactions of colouring matters. I. Reversible photochemical reaction of malachite-green, A., 529.
- Arima, J., new glucoside in the root of *Peucedanum decursivum*, Maxim, A., 599.
- Aris, G., dyeing and printing with phenylamino black, (P.), B., 965*.
- Arkel, A. E. van, separation of metals from the gas phase, A., 325.
- atomic volumes of zirconium and hafnium, A., 1131.
- Arkel, A. E. van, and Bruggen, M. G. van, recrystallisation phenomena in aluminium, A., 816.
- Arkel, A. E. van, De Boer, J. H., and Naaml. Vennoots. Philips' Gloeilampenfabr., process for dissolving a mixture of hafnium and zirconium phosphates and for separating hafnium and zirconium, (P.), B., 331*, 749*.

- Arkel, *A. E. van*, and *Koets, P.*, recrystallisation centres in metals, A., 401.
- Arkel, *A. E. van*. See also *De Boer, J. H.*
- Arman, *M.* See *Grüner, R.*
- Armitage, *F. L.*, producing improved cream for butter making and improved milk for cheese making, (P.), B., 26.
- Armour, *J. D.*, determination of small quantities of copper in steel, B., 487.
- Armstrong, *D.*, and *Drakeley, T. J.*, determination of moisture in raw rubber, B., 610.
- Armstrong, *G. W.*, and *National Carbon Co., Inc.*, depolariser for primary batteries, (P.), B., 530.
- Armstrong, *H. H.*, recovery of hydrocarbon oils from oil sands, (P.), B., 163.
- distilling and refluxing unit [for oil], (P.), B., 245.
- cracking of oils, (P.), B., 274.
- recovery of condensable vapours from gases, (P.), B., 385.
- Armstrong, *P. A. E.*, alloy impact-tool steel, (P.), B., 880.
- Armstrong, *Whitworth & Co., Ltd.*, (*Sir W. G.*), and *Windle, E.*, [electrode economiser for] electric furnaces, (P.), B., 562.
- Arnaudi, *C.*, *Kopaczewski, W.*, and *Rosnowski, M.*, physico-chemical antagonisms of bacteria, A., 903.
- Arnd, *T.*, and *Siemens, W.*, determination of p_H by means of the quinhydrone electrode, B., 56.
- Arnd, *T.* See also *Tacke, B.*
- Arndt, *F.*, *Eistert, B.*, and *Partale, W.*, diazomethane and *o*-nitro-compounds. II. *N*-Hydroxyisatin from *o*-nitrobenzoyl chloride, A., 774.
- Arndt, *F.*, and *Partale, W.*, compound derived from *o*-nitrobenzaldehyde and diazomethane and its transformation products, A., 360.
- Arndt, *K.*, application of thermal analysis [to waxes], B., 339.
- "anode effect" in the aluminium bath, B., 659.
- Arndt, *K.*, and *Ploetz, G.*, electrochemical behaviour of silver and copper amalgams, A., 736.
- Arndt, *K.*, *Walter, H.*, and *Zender, E.*, investigations relating to the pyrolusite [Leclanché] cell, B., 81.
- Arner, *W. J.* See *Long, J. S.*
- Arnesen, *G.*, and *Bech, P. A.*, composite building and insulating materials, (P.), B., 843.
- Arning, *D. Y.*, lactic acid maximum of cardiac muscle, A., 987.
- Arnold, *E. E.*, and *Nitrogen Corporation*, manufacture of sodium bicarbonate and production of nitrogen, (P.), B., 140.
- Arnold, *R. M.*, and *Mendel, L. B.*, relationship between chemical composition of blood and lymph in the dog, A., 475.
- Arnold Print Works, treatment of cellulosic materials, (P.), B., 873.
- Arnot, *J. M.*, mechanism of resin sizing [of paper], B., 934.
- Arnot, *R.*, manufacture of parchmentised or vulcanised fibre, (P.), B., 103.
- Arnovljevitich, *M.* See *Ambard, L.*
- Arnovljevitich, *V.* See *Chahovitch, X.*
- Arrouet, *M.*, Miguet electrode and the Miguet furnace, B., 633.
- Arsem, *W. C.*, and *Commercial Solvents Corporation*, production of formic acid, (P.), B., 125.
- Arsem, *W. C.*, and *Industrial Technics Corporation*, production of inulin and its derivatives, (P.), B., 499.
- extraction and purification of inulin, (P.), B., 499.
- hydrolysis of inulin, (P.), B., 499.
- production of levulose, (P.), B., 499.
- preparation of levulose, (P.), B., 499.
- manufacture of a levulose product, (P.), B., 500.
- purification of sugar juices, (P.), B., 500.
- Arthur, *E. P.*, *Mitchener, W. B.*, and *Withrow, J. R.*, high-temperature whitewash, B., 483.
- Artner, *T. von*, platinum contact mass for use in the conversion of sulphur dioxide into sulphur trioxide, (P.), B., 813.
- Artstone Burial Vault Co., Inc. See *Tanner, O. A.*
- Arx, *R. von*, pictures by the transfer process, (P.), B., 862*.
- Asagoe, *K.*, large displacements of the spectral lines of chlorine, A., 2.
- large displacements and broadening of the lines of bromine and iodine, A., 602.
- Asahara, *G.*, and *Sasahara, T.*, crystal system of α -thallium, A., 814.
- Asahi Glass Co., Ltd., fertilisers, (P.), B., 422.
- Asahina, *Y.*, *Manske, R. H. F.*, and *Robinson, R.*, synthesis of rutacarpine, A., 982.
- Asai, *T.* See *Takahashi, T.*
- Asbestos Corporation, Ltd., centrifugal apparatus for collecting dust, especially asbestos in course of manufacture, (P.), B., 928.
- Aschan, *O.*, utilisation of light petroleum and petroleum residues, B., 161.
- Aschan, *O.*, and *Levy, P.* [with *Brunotte, H.*], pinabietic acid, A., 1067.
- Aschenbrenner, *M.*, double refraction and thixotropy of aluminium hydroxide sols, A., 813.
- Aschenbrenner, *M.* See also *Freundlich, H.*
- Asendorf, *H.*, evaluation of gas-purifying material, B., 33.
- Ashby, *A.*, waterproofing composition, (P.), B., 884.
- Ashcroft, *E. A.*, electrolytic methods for separating and recovering the constituents of metallic salts in a state of fusion for use in the treatment of ores or other products, (P.), B., 492.
- Ashley, *J. N.*, derivatives of stilbene, A., 53.
- Ashton, *F. W.*, and *Wilson, R.*, preparation and optical properties of calcium hydroxide crystals, A., 402.
- Ashton, *F. W.* See also *Hansen, W. C.*
- Ashworth, *A. A.*, pipe still for continuous distillation in the laboratory, B., 693.
- Askenasy, *P.*, *Elöd, E.*, and *Zieler, H.*, oxidation reactions. I. Production of nitrates and arsenic acid, A., 635.
- Askenasy, *P.* See also *Akt.-Ges. für Chemische Produkte vorm. H. Scheidemandel.*
- Askew, *H. O.*, production of fog in the neutralisation of alkali with hydrogen halides, A., 620.
- rate of absorption of hydrogen chloride in aqueous solutions, B., 813.
- Askey, *P. J.* See *Hinshelwood, C. N.*
- Askini, *D. L.*, types of soil acidity and adsorption capacity of soils and the importance of these factors for liming and manuring with phosphorite, B., 232.
- Åslander, *A.*, sulphuric acid as a weed spray, B., 710.
- Asmanov, *A.*, oxidation of bivalent chromium in aqueous solution in absence of air, A., 326.
- Associated Lead Manufacturers, Ltd. See *Waring, H.*
- Astachov, *K.* See *Vosnessenski, S.*
- Astanin, *P. P.* See *Slovzov, B. I.*
- Astbury, *W. T.*, general list of organic crystals, A., 97.
- simple radioactive method for the photographic measurement of the integrated intensity of X-ray spectra, A., 912.
- Asterblum, (*Fr.*) *M.*, duration of after-glow in mercury vapour, A., 285, 707.
- Aston, *F. W.*, constitution of mercury derived from coal tar, A., 392.
- constitution of ordinary lead, A., 806.
- new mass-spectrograph and the whole number rule, A., 914.
- Aston, *G. H.*, amount of energy emitted in the γ -ray form by radium-E, A., 1121.
- Aston, *J. C.* See *Fullerton, Hodgart, & Barclay, Ltd.*
- Aston, *J. G.* See *Stewart, T. D.*
- Aston, *R. L.*, X-ray analysis of single crystals, A., 296.
- tensile deformation of large aluminium crystals at crystal boundaries, A., 299.
- Astruc, *A.*, and *Mousseron, M.*, soluble enzymes contained in black mustard (*Brassica nigra*, K.), A., 386.
- Atack, *F. W.* See *Hope, E.*
- Atanasiu, *I.*, stabilisation of the inflexion-point in potentiometric precipitation reactions, A., 126.
- Atanasiu, *V.* See *Butescu, D.*
- Atchley, *D. W.*, and *Benedict, E. M.*, distribution of electrolytes in dogs following ligation of both ureters, A., 693.
- Atekison, *E. J.* See *Millard, R. B.*
- Aten, *A. H. W.*, *Bruin, P.*, and *De Lange, W.*, poisoning of hydrogen electrodes. I., A., 839.
- Aten, *A. H. W.*, *Gilse, J. P. M. van*, and *Ginneken, P. J. H. van*, p_H of carbonation process in the manufacture of sugar and properties of proteins present, B., 23.
- Aten, *A. H. W.*, *Ginneken, P. J. H. van*, and *Engelhard, F. J. W.*, carbonation of sugar-lime solutions, B., 23.
- Atkin, *W. R.*, development of the Sørensen equation for the isoelectric points of ampholytes, A., 516.
- Atkin, *W. R.*, and *Burton, D.*, water analysis, B., 830.
- Atkin, *W. R.*, and *Thompson, F. C.*, hide powder, B., 853.
- Atkins, *E. A.*, drawing of steel wire and its relation to qualities of steel, B., 445.
- Atkins, *W. R. G.*, soluble silicate content of soils, B., 791.
- Atkins, *W. R. G.*, and *Wilson, E. G.*, colorimetric determination of minute amounts of compounds of silicon, phosphorus, and arsenic, A., 36.
- phosphorus and arsenic compounds of sea-water, A., 538.

- Atkinson, F. C., leather dressing and tanning material, (P.), B., 373.
- Atkinson, R. d'E., emission of light from hydrogen atoms, A., 997.
- Atkinson, R. H. See Mond Nickel Co.
- Atlantic Refining Co. See Chillas, R. B., jun., and Lewis, J. W., jun.
- Atlas Powder Co. See Creighton, H. J., Jessen, C. C., Shipley, S. de V., and Wilcoxon, F.
- Atlas-Werke Akt.-Ges., water purifier in which the water is heated with steam and then filtered, (P.), B., 462.
- Atmospheric Nitrogen Corporation. See Bramwell, F. H., Collett, E., De Jahn, F. W., Humphrey, H. A., and Kniskern, W. H.
- Atree, G. F., and Perkin, A. G., position of the sugar nucleus in the quercitin glucosides, A., 231.
- Atsuki, K., and Nakamura, M., mechanism of the loading of paper, B., 962.
- Atsuki, K., and Shimoyama, K., cellulose benzoate, B., 70.
- Atterer, M. See Schmidt, Erich.
- Atuesta, M. A. See Jones, C. E.
- Aub, J. C. See Hunter, D.
- Aubel, E., and Genevois, L., oxidation-reduction potential of yeast, of *B. coli*, and of the media on which these grow, A., 993.
- Aubel, E., Genevois, L., and Wurmser, R., reduction potential of sugars, A., 316.
- Aubel, E. See also Devaux, H.
- Aubel, E. van, rule of the three temperatures, A., 101.
- thermo-electric force of alloys, A., 197.
- refractive indices of mixtures calculated by the formula of Dieterici and of Lichtenecker, A., 303.
- viscosity of liquid chlorine, A., 507.
- Aubel, P. K. See Rouse, E. W.
- Audibert, E., production of substantially pure methyl alcohol, (P.), B., 571.
- Audibert, E., and Delmas, L., mechanism of coking, B., 383, 625*.
- Audrieth, A. F. See Browne, A. W.
- Audrieth, L. F., Smith, G. B. L., and Browne, A. W. [with Mason, C. W.], azidodithiocarbonic acid. IV. Ammonium and tetramethylammonium azidodithiocarbonates; tetramethylammonium thiocyanate, A., 1044.
- Audubert, R., determination of the energies of reaction from a knowledge of the active radiations, A., 429.
- radiochemistry and photo-electricity, A., 732.
- application of the radiochemical theory to solutions of sodium iodide, A., 735.
- valve effect shown by a silicon anode, and its mechanism, A., 1145.
- Auer, L., gas coagulation theory of the drying of fatty oils, B., 145.
- oxidation in the drying and thickening of fatty oils, B., 495.
- effect of water on the formation and spreading of fatty oil films, A., 822.
- non-liquid disperse systems of the fatty oils, A., 824.
- Auerbach, J. See Kind, W.
- Auerbach, R. See Ostwald, Wolfgang.
- Auerswald, C. See Paal, C.
- Aufrecht, detection of fungus poison, B., 267.
- Augem, A. See Colin, H.
- Auger, V., and Eichner, C., compound intermediate between vanadium sulphate, $V_2O_5 \cdot nSO_3$, and vanadyl sulphate, $VOSO_4$, A., 843.
- Auméras, M., ionic equilibria. I. Equilibrium between calcium oxalate and dilute hydrochloric acid, A., 312.
- conductivity of hydrofluoric acid, A., 733.
- ionic equilibria. II. Equilibrium between calcium fluoride and dilute hydrochloric acid, A., 1141.
- Auméras, M. See also Gay, L.
- Aumonier, F. S., simple mercury cathode for arsenic determinations, B., 813.
- Aurednick, A. See I. G. Farbenind. A.-G.
- Aurousseau, M., analyses of three Australian rocks, A., 1165.
- Auspitzer, A. J., improving the quality of wood, (P.), B., 142.
- Austerweil, G., synthesis of *l*- α -pinene from nopinene, A., 60.
- hydration of nopinene. III. Comparison of the hydration of pinene and nopinene, A., 1032.
- examination of turpentine oil used in large-scale chemical industry, B., 419.
- manufacturing borneol and isoborneol, (P.), B., 764.
- Austerweil, G., and Lemay, L., new synthesis of thymol, A., 555.
- Austerweil, G., and Petrovici, (Mlle.) O., hydration of nopinene. II., A., 156.
- Austin, J. H., Sunderman, F. W., and Camack, J. G., serum electrolytes. II. Electrolyte composition and pH of the serum of a poikilothermous animal at different temperatures, A., 584.
- Austin, R. H., reactions between monocalcium phosphate and soils, B., 950.
- Austin, S. See Flow Coal Washery Co., Ltd.
- Austin, W. C., and Matthews, S. A., effect of the parathyroid hormone on gastric secretion. II. Calcium content of gastric juice, A., 1115.
- Austin, W. C. See also Matthews, S. A.
- Australian Council for Scientific and Industrial Research, treatment of red gum or marri kino (*Eucalyptus calophylla*) for the preparation of tannin extract, B., 853.
- Australian Lanoline Proprietary, Ltd. See Avery, J.
- Austro-American Magnesite Co., and Erdmann, K., manufacture of moulded articles from fibrous materials, (P.), B., 13.
- Automatic & Electric Furnaces, Ltd., and Wild, L. W., heat treatment of iron or steel, (P.), B., 369.
- Auvergne Laitière. See L'Auvergne Laitière.
- Auwers, K. von, transformations and isomerism of acyltetrahydroindazoles, A., 576.
- various spectrochemical observations, A., 1123.
- Auwers, K. von, and Bahr, K., isomeric relationships in the pyrazole series. X. Alkyl-, allyl-, and chloro-pyrazoles, A., 677.
- Auwers, K. von, Baum, H., and Lorenz, H., formation of coumarones and chromanones from phenols, A., 670.
- Auwers, K. von, and Bullmann, P., influence of substitution in the nucleus on the stability and reactivity of aromatic compounds, A., 144.
- Auwers, K. von, and Demuth, W., wandering of acyl groups in indazole derivatives, A., 260.
- Auwers, K. von, and Ernst, W., [spectrochemistry of compounds containing nitrogen. II.], A., 395.
- Auwers, K. von, and Frese, E., synthesis of 1-acylindazoles [and related substances], A., 160.
- Auwers, K. von, and Heimke, P., spectrochemistry [preparation and constitution] of pyrazolines, A., 1203.
- Auwers, K. von, and Herbener, W. [with Gaertner, W.], ring opening and closing in coumarandione derivatives, A., 156.
- Auwers, K. von, and Leo, M., ω -chloro-*o*-hydroxyacetophenone, A., 154.
- Auwers, K. von, and Lorenz, H., ring fission with coumaranone derivatives, A., 60.
- Auwers, K. von, and Mausolf, C., isomeric relationships in the pyrazole series. XI. Alkyl derivatives of 3(5)-phenylpyrazole, A., 1088.
- Auwers, K. von, and Mauss, H., reactions of hydrazines with hydroxymethylene-ketones and their derivatives. I., A., 361.
- Avdejeva, M. S., Provatorova, E. L., Savitsch, N. G., and Thal, E. L., fluctuations in the blood-sugar content of cattle, A., 986.
- Averill, C. C., and Barnickel & Co., W. S., treatment of petroleum emulsions, (P.), B., 436.
- Avery, J., and Australian Lanoline Proprietary, Ltd., treatment of [wool-scouring] liquids containing oil or fatty substances and the like, (P.), B., 746*.
- Avery, John, Haworth, W. N., and Hirst, E. L., constitution of the disaccharides. XV. Sucrose, A., 1057.
- Avery, J. W., and Smithells, C. J., effect of working on the physical properties of tungsten, B., 113.
- Avery, J. W. See also Rankine, A. O., and Smithells, C. J.
- Avis, J. L. See Coast Range Steel, Ltd.
- Avogadro, L. See Ponzio, G.
- Awbery, J. H., latent heat of evaporation of sulphur, A., 1018.
- Awbery, J. H., and Griffiths, E., Ewing ball-and-tube flow-meter, B., 463.
- ball and tube flow-meter suitable for pressure circuits, B., 671.
- Awbery, J. H. See also Griffiths, E.
- Awe, W., determination of zinc by means of membrane filters, A., 639.
- Axtmayer, J. H. See Sherman, H. C.
- Aylesworth, (Miss) E. F., dielectric constant of atomic hydrogen from the point of view of Bohr's quantum theory, A., 812.
- Ayres, A. U. See Jones, L. D.
- Ayres, E. E., jun., and Haabestad, E. E., substituting hydroxyl groups for the acid radicals in liquid esters of inorganic acids or for halogens in liquid derivatives of hydrocarbons; [preparation of alcohols by hydrolysis of inorganic esters, organic halides, etc.], (P.), B., 859.

- Ayres, *E. E., jun.*, and Sharples Specialty Co., resolution of water-in-oil emulsions, (P.), B., 836*.
 Ayyar, *P. R.* See Bhattacharya, *R.*, Ghanekar, *R. V.*, and Kanga, *D. D.*
 Azbe, *V. J.*, science and engineering in lime-burning, B., 476.
 Azogeno S.-A. per la Fabr. Dell' Ammoniaca Sintetica e Prod. Derivati, and Toniolo, *C.*, manufacture of ammonium nitrate in water solution and simultaneous concentration thereof; rapid evaporation to dryness of ammonium nitrate solutions, (P.), B., 408.
 concentration of ammonium nitrate solutions, (P.), B., 440.

B.

- Baader, *W.* See Burford, *W. A.*
 Baars, *B.* See Held, *E. F. M. van der.*
 Babb, *J. P.* See Willock, *H. H.*
 Babcock, *H. D.* See Dieke, *G. H.*
 Babcock & Wilcox Co., utilising the heat of materials discharged from furnaces and kilns, (P.), B., 512.
 Babcock & Wilcox Co. See also Witz, *H. E.*
 Babcock & Wilcox Dampfkesselwerke Aktien-Gesellschaft, [ash-cooling screens for] furnaces, (P.), B., 177*.
 Babcock & Wilcox, Ltd., Hall-Brown, *A.*, and Jones, *E. W.*, heat exchange apparatus, (P.), B., 320.
 Babille, *M.*, mechanical manufacture of window glass, B., 842.
 Baborovský, *J.*, determination of ionic hydration; (modification of Remy's method), A., 1140.
 Baborovský, *J.*, and Velíšek, *J.*, absolute hydration of the ions H^+ , Li^+ , Na^+ , K^+ , Cl^- , and Br^- in their normal solutions, A., 734.
 Bach, *A.*, and Michlin, *D.*, so-called succino-dehydrase, A., 591.
 Bach, *H.*, purification of effluents from by-product plants of coke ovens and gas works, B., 4.
 Bach, *H.*, and Gläser, *K.*, determination of the chlorine value of effluents, B., 926.
 Bach, *H.*, and Uthe, *H.*, determination of the phenol content of gas liquor [crude ammonia liquor] and effluents from coke-oven by-product plants [and gasworks, etc.], B., 401.
 Bacharach, *A. L.*, and Hartwell, *G. A.*, technique in testing for vitamin-B, B., 313.
 Bacharach, *A. L.* See also Jephcott, *H.*
 Bacharach, *G.*, nitration of aromatic compounds with metallic nitrates, A., 759.
 Bachem, *C.*, toxicology of the alkyl halides, A., 589.
 Bachman, *F. E.*, recovery of titanic acid, iron, and magnesia from titaniferous ores, (P.), B., 364.
 Bachmann, *F.*, and Dorr Co., separation of solids from liquids, (P.), B., 463.
 Bachmann, *W.* See Stutchbury, *M. S.*
 Bachmann, *W. E.*, and Clarke, *H. T.*, mechanism of the Wurtz-Fittig reaction, A., 962.
 Bachmann, *W. E.* See also Gomberg, *M.*
 Bachstetz, *M.* See I. G. Farbenind. A.-G.
 Back, *E.*, magnetic resolution of the arc spectrum of zinc, A., 802.
 Back, *E.* See also Goudsmit, *S.*
 Backenköhler, *F.* See Scheibe, *G.*
 Backer, *H. J.*, dihalogenomethanesulphonic acids, A., 39.
 Backer, *H. J.*, and Mook, *H. W.*, optical resolution of chlorobromoacetic acid, A., 132.
 Backer, *H. J.*, and Toxopeus, *M.*, α -sulpho-*n*-valeric acid, A., 133.
 Backer, *H. J.*, and Zanden, *J. M. van der*, sulphosuccinic acid, A., 856.
 Backhaus, *A. A.*, and United States Industrial Alcohol Co., revivifying carbon used in purifying ethylene; revivifying carbon, (P.), B., 344*.
 Bacon, *E. K.* [with Ferguson, *A. L.*], diffusion-potential measurements applied to hydrochloric acid-gelatin systems. II. Components of hydrochloric acid-gelatin solutions, A., 935.
 Bacon, *E. K.* See also Ferguson, *A. L.*
 Bacon, *L. R.* See Hill, *A. E.*
 Badaren, *E.*, impact of slow cations on lithium chloride in a high vacuum, A., 1002.
 Baddiley, *J.*, Hill, *J.*, and British Dyestuffs Corporation, Ltd., production of fast greenish-yellow shades on acetyl silk, (P.), B., 105*.
 Baddiley, *J.*, Shepherdson, *A.*, Swann, *H.*, Hill, *J.*, Lawrie, *L. G.*, and British Dyestuffs Corporation, Ltd., dyeing acetyl cellulose or fabrics containing the same and new products for use therein, (P.), B., 216*.
 Baddiley, *J.* See also British Dyestuffs Corporation, Ltd.

- Bader, *J.* See Pastureau, *J.*
 Bader, *W.*, and American Cellulose & Chemical Manufacturing Co., Ltd., separation of one or more constituents of liquid mixtures; [concentration of acetic acid], (P.), B., 108*.
 Bădescu, (*Mlle.*) *M. N.* See Longinescu, *G. G.*
 Badger, *R. M.*, absolute intensities in the hydrogen chloride rotation spectrum, A., 808.
 Badger, *W. L.*, evaporation of sulphite[*-*cellulose] waste liquor, B., 627.
 Badger, *W. L.*, and Swenson Evaporator Co., process of evaporation, (P.), B., 95.
 Badger, *W. L.* See also Montillon, *G. H.*
 Badische Anilin- & Soda-Fabrik, fast dyeings on wool, (P.), B., 9.
 manufacture of iron carbonyl compositions, (P.), B., 36.
 manufacture of stable iron carbonyl compositions, (P.), B., 36.
 preparations [for generating diazonium salt solutions] suitable for developing baths for use in dyeing, (P.), B., 41.
 dyeing process [for wool], (P.), B., 71.
 manufacture of isodibenzanthrones, (P.), B., 101.
 manufacture of vat dyestuffs of the isodibenzanthrone series, (P.), B., 101.
 feeding solids into or removing solids from vessels under pressure, (P.), B., 127.
 colouring of plastic materials, (P.), B., 186.
 vat dyes of the anthraquinone series, (P.), B., 212.
 washing and cleaning preparations [for textiles], (P.), B., 205.
 manufacture of organic compounds containing oxygen [methyl alcohol, etc.], (P.), B., 316.
 manufacture of methyl alcohol and other oxygenated organic compounds, (P.), B., 316.
 manufacture of vat colouring matters of the anthraquinone series [acylated aminoanthraquinones], (P.), B., 326.
 manufacture of vat dyestuffs [dialkoxyisodibenzanthrones], (P.), B., 326.
 vat dyes of the dibenzanthrone series, (P.), B., 647.
 Badische Anilin- & Soda-Fabrik, and Farbenfabr. vorm. *F. Bayer & Co.*, manufacture of anthraquinone derivatives, (P.), B., 674.
 Badische Anilin- & Soda-Fabrik, Müller-Cunradi, *M.*, and Wilke, *W.*, manufacture of liquid fuels, (P.), B., 868*.
 Badische Anilin- & Soda-Fabrik. See also I. G. Farbenind. A.-G.
 Bado, *A. A.* See Negri, *M. L.*
 Badoche, *M.* See Moureu, *C.*
 Badollet, *M. S.* See Paine, *H. S.*
 Bäcker, *E.* See Feigl, *F.*
 Bäckström, *H. L. J.*, chain-reaction theory of negative catalysis, A., 737.
 chain-reaction theory of negative catalysis. II. Two stages in auto-oxidation reactions. III. General characteristics of auto-oxidation reactions, A., 1151.
 Bähr, *H.*, and Fallböhmer, *F.*, influence of coking conditions and the addition [of inorganic oxides] to the coal on the properties of coke, B., 3.
 Bähr, *H.* See also Siemens, *F.*, Akt.-Ges., G.m.b.H.
 Baekeland, *L. H.*, and Bakelite Corporation, manufacture of resinous condensation products from dihydroxydiphenylethane and reactive methylene compounds, (P.), B., 823.
 Bänninger, *A.* See Müller, *F. G.*
 Baer, *E.* See Fischer, *H. O. L.*
 Baernstein, *H. D.*, conductivity method and proteolysis. I. Peptone, A., 992.
 Bätz, *B.*, effect of frost on the "availability" of phosphoric acid and potassium [in the soil], B., 855.
 Bag, *A.*, and Novikov, *W.*, prevention of autoxidation of olein, B., 562.
 Bagdasarjan, *A. B.*, reduction of metallic chlorides by hydrogen, A., 431.
 Bagesgaard-Rasmussen, *H.*, Jackerott, *K. A.*, and Schou, *S. A.*, determination of bismuth in urine, A., 788.
 Bagh, *A.*, mechanism of the sulphuric acid splitting of vegetable oils and distillation of the resulting fatty acids, B., 882.
 Baglioni, *S.*, Bracaloni, *L.*, and Galamini, *A.*, physiological action of alcohol. I. Alcoholic content of the blood of a fasting man following ingestion of alcoholic liquor. II. Variations of glycaemia and alcoholæmia following ingestion of alcoholic liquors and of sucrose, A., 375.
 Baglioni, *S.*, and Settimi, *L.*, chemical modifications produced in wheat flour by benzoyl peroxide, B., 762.
 Bagnall, *D. J. T.* See Tankard, *A. R.*
 Baguley, *N. G.* See Courtaulds, Ltd.
 Bahr, *K.* See Auwers, *K. von.*

- Bahrdt, A., volumetric determination of sulphate in drinking water, B., 238.
- Baiardo, N. See Sanna, A.
- Bailey, C. F. See Marvel, C. S.
- Bailey, C. H., and Sherwood, R. C., relation of crude protein content of flour to loaf volume, B., 396.
- Bailey, C. H. See also Barackman, R. A., Grewe, E., Sherwood, R. C., and Vogel, H.
- Bailey, C. R. See Wilcox, K. W.
- Bailey, E. G., furnace [walls], (P.), B., 431.
- Bailey, K. C., effect of radon on the solubility of lead uranate, A., 928.
- ferrie thiocyanate, A., 1045.
- Bailey, K. C. See also Werner, E. A.
- Bailey Meter Co. See Eisenschitz, R.
- Baillie, W. L., durability of glasses containing zinc, B., 12.
- Bailiod, C., cell with diffusion anode; relative velocities of reaction of liquid depolarisers, A., 736.
- Bain, J. W., Musgrave, J. E. T., Kay, G. F., Chute, G. M., and Rowland, S. A., behaviour of cellulose on heating, B., 699.
- Baines, H., determination of iodide in mixtures of halides, B., 813.
- Baird, D. See Hartley, H. J.
- Baird, W., Burns, R., and Wilson, F. J., reactions of thiosemi-carbazones. III., A., 1176.
- Baird, W., and Wilson, F. J., action of hydrazines on semi-carbazones. III., A., 1063.
- Baissac, L., determination of the amount of sulphur dioxide in Mauritius direct-consumption sugars, B., 952.
- Bakelite Corporation, potentially reactive liquid coating compositions, (P.), B., 419.
- manufacture of moulded phenolic compositions, (P.), B., 756.
- liquid coating composition, (P.), B., 851.
- Bakelite Corporation. See also Baekeland, L. H., Brock, F. P., Peakes, G. L., and Rossi, L. M.
- Bakelite Gesellschaft m.b.H., impregnating porous substances or fillers with artificial resins, (P.), B., 416.
- production of compositions containing phenol-aldehyde condensation products, (P.), B., 497*.
- purification of condensation products produced from phenols and aldehydes, (P.), B., 532.
- production of phenol-aldehyde resins, (P.), B., 684.
- Bakelite Gesellschaft m.b.H., and Seebach, P., purification of resinous phenol-aldehyde condensation products, (P.), B., 259.
- Baker, E. A., measurement of radiation intensity by photographic methods, A., 528.
- law of blackening of the photographic plate at low densities, B., 461.
- Baker, G. R., Prescott, W. E., Gilderdale, C. W., and Rowntree & Co., Ltd., method and apparatus for grading solid materials, (P.), B., 353*.
- Baker, G. R. See also Baker Perkins, Ltd.
- Baker, H. B., and Riley, H. L., atomic weight of silver, A., 289, 493.
- Baker, H. M., intoxication with commercial methyl chloride, A., 900.
- Baker, J. R., temperature and enzymic activity, A., 482.
- Baker, J. W., alternating effect in carbon chains. XII. Nitration of some derivatives of methyl benzylaminoformate, A., 454.
- Baker, J. W., and Eccles, A., alternating effect in carbon chains. XXI. Directive influence of the groups $-\text{CH}_2\text{CH}(\text{CO}_2\text{Me})_2$, $-\text{CH}_2\text{C}(\text{CO}_2\text{Me})_2$, $-\text{C}(\text{CO}_2\text{Me})\text{CH}_2$, and $-\text{CH}:\text{CH}:\text{CH}_2\text{C}(\text{CO}_2\text{Me})_2$ in aromatic substitution, A., 1068.
- Baker, J. W., and Ingold, C. K., alternating effect in carbon chains. XI. Substitution of benzylamine salts, A., 236.
- alternating effect in carbon chains. XV. Directive action of some groups of the form $-\text{CR}'\text{R}''\text{COR}$ in aromatic substitution, A., 558.
- Baker, J. W., and Wilson, I. S., alternating effect in carbon chains. XVII. Directive action of the groups $-\text{CH}_2\text{CH}_2\text{NO}_2$, $-\text{CH}:\text{CH}:\text{NO}_2$, and $-\text{C}(\text{NO}_2)\text{CHR}$ in aromatic substitution, A., 530.
- Baker, L. C., and Marriam, G. F., determination of adrenaline, A., 903.
- Baker, L. E. See Carrel, A.
- Baker, S. See Nielsen, H.
- Baker, W. G. See Harper, H. J.
- Baker & Co., Inc. See Brainin, C. S., and Hickley, H. W.
- Baker Perkins, Ltd., Baker, G. R., Prescott, W. E., and Société Anonyme des Anciens Établissements A. Savy Jeanjean & Cie, apparatus for concentrating and evaporating liquids, such as syrups, (P.), B., 535.
- Baker Perkins, Ltd., and Dewhurst, F., hydro-extractors [for laundries], (P.), B., 104*.
- Baker Perkins, Ltd., and Pointon, J. E., hydro-extractors, (P.), B., 128.
- Baker, W. E. See Thaysen, A. C.
- Bakke, O. M., chloro-tastes [of water] and their eradication at Dallas, Texas, B., 158.
- Baksi, J. B. See Ghosh, J. C.
- Bal, D. V., carbon dioxide production in soil and solution, B., 310.
- effect of varying concentrations of ammonia on the nitrifying power of the soil, B., 825.
- Balaban, I. E., and King, H., gold and mercury derivatives of 2-thioglyoxalines; mechanism of the oxidation of 2-thioglyoxalines to glyoxalines, A., 977.
- Balachovsky, S., and Turbaba, W., action of external stimuli on the refractive index of blood-serum, A., 689.
- Balandin, A. A. See Iijinski, M. A., and Zelinski, N. D.
- Balányi, D. See Stiasny, E.
- Balarev, D., changes in the surface of freshly-pulverised crystalline salts [on keeping], A., 95.
- reactions in the solid state. VII., A., 314.
- change of properties of substances on drying, A., 613.
- Balarev, D. [with Gantschev, N., and Srebrov, B.], new kinds of mixed crystals. IV., A., 925.
- Balarev, D. [with Kolev, N.], catalysis [of decomposition of ethyl alcohol], A., 117.
- Balarev, D. [with Kovandjiev, A., and Kuleliev, K.], solubility and particle size. IV., A., 823.
- Balarev, D. [with Spassov, A.], equilibrium between the hydrates of calcium sulphate, A., 829.
- Balarev, D., and Desev, N., determination of manganese as pyrophosphate, A., 537.
- Balarev, D., and Kandilarov, G., new kinds of mixed crystals. II. and III., A., 721, 738.
- Balasse, G., luminescence of potassium vapour in the electrodeless discharge, A., 7.
- electrodeless discharge in quenched and sustained waves; continuous spectra of caesium and of potassium, A., 490.
- continuous spectra obtained by the electrodeless discharge in mercury vapour, A., 605.
- spark spectrum of caesium, A., 911.
- Balasse, G., and Goehe, O., spectrum of luminescence of caesium in electrodeless discharge, A., 187.
- luminescence of caesium vapour in the silent discharge, A., 609.
- Balch, R. T., clarification for polarisation, B., 311.
- Balch, R. T. See also Paine, H. S.
- Baldwin, E. J., determination of very low concentrations of volatile oils in emulsions; [separation of minerals], B., 725.
- Baldwin, I. L., and Fred, E. B., fermentation characters of the root nodule bacteria of the *Leguminosae*, B., 856.
- Balks, R. See Hasenbäumer, G.
- Ball, C. D., jun., wheat oil, B., 196.
- Ball, T. R., reference electrode for potentiometric titrations, A., 434.
- Ballard, H. O., dehydrating crude petroleum oil, (P.), B., 7.
- Ballay, M. See Guillet, L.
- Balle, G. See Daimler, K., and I. G. Farbenind. A.-G.
- Ballet, J., [action of amines and ammonia on acetylenic γ -diketones], A., 1055.
- Balls, A. K., ψ -morphine; separation and determination of morphine, ψ -morphine, and related substances, A., 264.
- preservation of cane juice, (P.), B., 792.
- food product, (P.), B., 827.
- propagation of yeast, (P.), B., 857.
- drying of yeast, (P.), B., 921.
- Baltimore Gas Engineering Corporation. See Wilson, R. E.
- Baltzer, A., Grafe, E., and Partsch, F., action of insulin. II. A., 594.
- Baly, E. C. C., and Davies, J. B., photosynthesis of naturally occurring compounds. III. Photosynthesis *in vivo* and *in vitro*, A., 1041.
- Baly, E. C. C., Davies, J. B., Johnson, M. R., and Shanassy, H., photosynthesis of naturally occurring compounds. I. Action of ultra-violet light on carbonic acid, A., 1040.
- Baly, E. C. C., and Riding, R. W., measurement of absorptive power, A., 183.
- Baly, E. C. C., Stephen, W. E., and Hood, N. R., photosynthesis of naturally occurring compounds. II. Photosynthesis of carbohydrates from carbonic acid by means of visible light, A., 1041.

- Balz, G., zinc blende roasting kiln, (P.), B., 47.
zinc blende roasting furnace, (P.), B., 224.
- Balz, G., and Schiemann, G., aromatic fluoro-compounds. I. Preparation, A., 654.
- Balz, G. See also Wilke-Dörfurt, E.
- Bamag-Meguín Akt.-Ges., apparatus for distributing water to be purified at different depths in the clarifier, (P.), B., 462.
separation of carbon dioxide from gas mixtures by means of ammoniacal liquor, (P.), B., 770.
diaphragm for water electrolyser, (P.), B., 944.
- Bamag-Meguín Akt.-Ges., and Heller, O., low-temperature distillation, (P.), B., 867.
- Bamber, M. K. See British Portland Cement Manufs., Ltd.
- Bamberg, K., determination of soil fertility by chemical means, B., 709.
- Bamberger, A., stabilisation of luminous paints, (P.), B., 197.
- Bamberger, E., condensation products from *o*-aminobenzaldehyde; preparation of the aldehyde, A., 361.
additive product from 2:4-dimethylquinol and aniline, A., 556.
- Bamberger, M., and Nussbaum, J., hydrogen peroxide explosives, B., 716.
- Bamford, A. C., machinery for making aqueous emulsions of dried milk or milk powder, (P.), B., 763.
- Bán, N. See Gerngross, O.
- Bancroft, C. W. See Hockney, H. L.
- Bancroft, W. D., mass unit of chemical potential, A., 206.
twenty-five years of theoretical electrochemistry, A., 419.
Gibbs on adsorption, A., 1136.
- Bancroft, W. D., and Gurchot, C., cell mitosis, A., 409.
- Bandemer, S. L. See Miller, E. J.
- Banerjee, A. N., scattering of light by aromatic compounds, A., 1127.
- Banerjee, D., can administration of sodium hydrogen carbonate or active iron oxide influence the course of avitaminosis in pigeons? A., 382.
- Bangler, B. See Schmid, L.
- Banholzer, W. See Elöd, E.
- Banks, H. P. See Davidson, G.
- Bannister, C. O., crystallisation of silver beads and detection of the platinum metals by the microscope, A., 746.
- Bannister, W. J. See Commercial Solvents Corporation.
- Banos, M. See Durand, J. F.
- Bansi, H. W., and Ucko, H., peroxidase. V. Mathematics of the enzyme action, A., 1111.
- Bansi, H. W. See also Ucko, H.
- Banthien, H. See Jander, G.
- Banus, M. G., and Katz, L. N., rôle of tissues in maintaining acid-base equilibrium of blood. I. Effect of isolated muscle tissue. II. Effect of hind-leg preparation, A., 1103.
- Baraboshkin, N., and "Trust Uralkupfer," extraction of precious metals from the slimes of copper refineries, (P.), B., 194.
- Barackman, E. A., and Bailey, C. H., rôle of phosphates in bread-making, B., 889.
- Barash, M., vertical-retort tar for road purposes, B., 36.
- Barat, C. See Sen, H. K.
- Barat, K. K., and Dutt, S., theory of colour on the basis of molecular strain. III. Decomposition of dyes under the influence of solar radiation, A., 1006.
- Barattini, G., *as-p*-nitrophenylethylhydrazine, A., 143.
- Barbaudy, J., distillation of heterogeneous ternary mixtures. II. System ethyl alcohol-benzene-water, A., 313.
- Barber, D. R., primary cell, A., 642.
- Barber, H. H., production of fat by a species of *Penicillium* grown in sucrose solution, B., 660.
- Barber Asphalt Co. See Forrest, C. N.
- Barbet, E. A., dry fertilisers and glycerin from vinasses, (P.), B., 152*.
production of dehydrated alcohol, (P.), B., 200.
- Barbier, G. See Demolon, A.
- Barbour, A. D., Chaikoff, I. L., MacLeod, J. J. R., and Orr, M. D., influence of insulin on liver- and muscle-glycogen in the rat under varying nutritional conditions, A., 594.
- Barbour, A. D. See also Ardagh, E. G. R.
- Barbour, C. A., jun., manufacture of carbon black, (P.), B., 835.
- Barbour, H. G. See Hamilton, W. F.
- Barclay, S. F., and Mather & Platt, Ltd., drying of fabrics in the open width, (P.), B., 215.
- Bardenheuer, P., graphite in grey cast iron, B., 526.
- Bardenheuer, P., and Kaiser, A., value of an addition of coal dust in the melting of iron in a cupola, B., 781.
- Bardwell, D. C. See Lind, S. C.
- Barer, A. See Gibson, R. B.
- Bares, J., influence of proteolytic enzymes of mushrooms on the decomposition of nitrogenous substances. I. *Cantharellus cibarius*, A., 703.
- Bareš, J. See also Stoklasa, J.
- Bargellini, G., α -[3-]phenylcoumarins, A., 883.
- Bargellini, G., and Grippa, A., β -[4-]phenylcoumarins, A., 465.
2:3:4'-[6:7:4'] trihydroxyflavone, A., 1197.
- Bargellini, G., and Monti, L., preparation of 4:6-dihydroxy- α -(*p*-hydroxyphenyl)coumarin [5:7:4'-trihydroxy-3-phenylcoumarin], A., 883.
- Barger, G. See Harington, C. R.
- Barger, W. R., Hawkins, L. A., and Blatz, C. P., preparation of fruit for the market, (P.), B., 569.
- Barkas, W., photophoresis of colloidal particles in aqueous solutions, A., 17.
- Barkenbus, C., and Zimmerman, A. J., Kentucky coffee nut tree seed-oil, A., 1116.
- Barker, B. T. P., and Grove, O., sulphur dioxide as a preservative for fruit, B., 26.
- Barker, E. A. See British Cotton & Wool Dyers' Assoc., Ltd.
- Barker, E. F. See Fox, G. W.
- Barker, E. R., and Dooley, F. J., manufacture of wood pulp, (P.), B., 104.
- Barker, S. G., standardisation of the fastness of dyestuffs, B., 935.
- Barker, S. G., and Hirst, H. R., fastness to light of dyestuffs on woollen and worsted fabrics. I. Comparison of the fading of dyestuffs in tropical and in English sunlight and by artificial light, B., 811.
- Barker, S. G., Hirst, H. R., and Lambert, P. N., fastness to light of dyestuffs on woollen and worsted fabrics. III. Relation between time of exposure and loss of colour due to fading. IV. Relation between initial depth of shade and loss of colour due to fading, B., 811.
- Barker, W. H., apparatus for screening fine coal or other materials, (P.), B., 832.
- Barker, W. H., and Orn, R. J. D., manufacture of a building material, (P.), B., 110.
- Barker, W. M., ball mill, (P.), B., 767.
- Barkholt, H. See Agde, G.
- Barkla, C. G., modified scattered X-radiation due to superposition, A., 602.
- Barkla, C. G., and Mackenzie, (Miss) G. I., scattered X-rays; *J*-phenomenon, A., 3.
- Barkla, C. G., and Watson, W. H., control of the *J*-phenomenon. VI. A., 3.
- Barksdale, I. S., preparation of cucurbitacin, (P.), B., 460.
- Barnebey, O. L., manufacture of decolorising carbons from vegetable materials, (P.), B., 290.
- Barnebey, O. L., and Cheney, M. B., manufacture of adsorbent carbon, (P.), B., 290.
- Barnes, E. L., refrigerating apparatus, (P.), B., 575.
- Barnes, J., and Fulweiler, W. H., shift in a near infra-red absorption band of some benzene derivatives, A., 918.
- Barnes, O. A., and Adams, R., piperidyl- and substituted piperidyl-alkyl *p*-aminobenzoates. III. A., 672.
- Barnes, W. H. See Maass, O.
- Barnett, E. de B., Cook, J. W., and Matthews, M. A., alkyl-anthracenes and "transannular tautomerism." II. A., 140.
- Barnett, E. de B., Cook, J. W., and Nixon, I. G., synthesis of mesoalkyl- and mesoaryl-anthracene derivatives. I. A., 349.
- Barnett, E. de B., Cook, J. W., and Wiltshire, J. L., synthesis of mesoalkyl- and mesoaryl-anthracene derivatives. II. A., 881.
- Barnette, R. M., synthetic calcium silicates as a source of agricultural lime. III. Comparison of the influence of synthetic calcium silicates with other forms of lime on the soil reaction, B., 171.
- Barnhart, C. E., oil-shale retort, (P.), B., 67.
- Barnickel & Co., W. S. See Averill, C. C., and De Groote, M.
- Barnitt, J. B., and Aluminum Co. of America, production of sodium aluminate, (P.), B., 388.
- Barnitt, J. B. See also Aluminum Co. of America.
- Barr, G., and Hadfield, (Miss) I. H., nature of the action of sunlight on cotton, B., 933.
- Barr, J. R. See Wokes, F.
- Barralet, F. O., manufacture of carbon granules for telephone transmitters, (P.), B., 866.
- Barratt, J. O. W., action of hirudin on thrombin, A., 1103.

- Barratt, S. See Bonniksen, C. W., and Walters, O. H.
- Barré, R., preparation of ethoxalyl chloride, A., 228.
- preparation of α -ketonic acids, A., 447.
- Barrenschén, H. K., and Berger, R., action of insulin. I. Inhibition of phosphate excretion by insulin, A., 1222.
- Barrenschén, H. K., Eisler, A., and Popper, L., blood-sugar. VIII. Blood-sugar and phosphorus curves. VI. Adrenaline, A., 1222.
- Barrett, A. W. See Myddleton, W. W.
- Barrett, F. L. See Kershaw, W., and Parker, C. S.
- Barrett, H. S. B. See Grimes, M., and Reilly, J.
- Barrett, J. See Moore, H.
- Barrett Co., and Cowdery, A. B., manufacture of rubber-compounding material, (P.), B., 341.
- Barrett Co., and Miller, S. P., polymerisation of oils, (P.), B., 722.
- Barrett Co., Moses, F. G., and Canavan, E. J., flotation agent for use in concentrating minerals, (P.), B., 302.
- Barrett Co. See also Craver, A. E., Downs, C. R., and Reeve, C. S.
- Barringer, L. E., Peterson, C. F., and General Electric Co., making moulded compositions, (P.), B., 260*.
- Barrow, Hepburn, & Gale, Ltd., and Hawkyard, A., apparatus for drying fibrous materials such as fabric, leather, yarns, and the like, (P.), B., 329.
- Barrows, W. P. See Haring, H. E.
- Barry, J. J., and General Seafoods Corporation, preserving food products, (P.), B., 314.
- Barry, T. H., arsenic in printing ink, B., 371.
- Barsky, G., and American Cyanamid Co., treatment of calcium cyanamide, (P.), B., 310.
- production of dicyanodiamide, (P.), B., 316.
- refrigerant, (P.), B., 512.
- Barsky, G., Freise, F. W., and American Cyanamid Co., production of fertiliser materials, (P.), B., 199.
- Barsky, G. See also Osborne, J. L.
- Barstow, E. O. See Dow, H. H.
- Bartels, A., and Miech, O., manufacture of shaped articles of casein, (P.), B., 453.
- Bartels, E. E., and Standard Oil Co. of California, production of residual oil products, (P.), B., 181.
- Barten, E., hearths of blast and like furnaces, (P.), B., 416.
- Barth, A., treating liquids or mixtures of liquids and solids with gases, (P.), B., 464.
- Barth, T., system thallium-antimony, A., 730.
- Barth, T., and Lunde, G., lattice constants of rock salt and of pure sodium chloride, A., 611.
- Barthe, L., and Dufflo, E., chlorine and sodium in the milk of mammals, A., 1105.
- elimination of sodium and chlorine in cows' milk, B., 264.
- Bartbélemy, H., and Société Industrielle des Matières Plastiques, manufacture of condensation products of carbamide and formaldehyde, (P.), B., 916.
- Bartlmeyer, H. See Schmalfuss, H.
- Bartlett, E. P., concentration of water vapour in compressed hydrogen, nitrogen, and a mixture of these gases in the presence of condensed water, A., 207.
- compressibility isotherms of hydrogen, nitrogen, and mixtures of these gases at 0° and pressures to 1000 atm., A., 404, 927.
- Bartlett, J. F., and Garland, C. E., cyclohexyl-phenols and phenol ethers, A., 968.
- Bartlett, K. W., apparatus for separating liquids and gases; tray, (P.), B., 383.
- water-softening apparatus, (P.), B., 462.
- Bartlett, P. G. See Parks, L. R.
- Bartlett, W. J. See Wright, J. G. E.
- Bartlett Hayward Co. See Wagner, F. H.
- Bartling, F. See Honigmann, L., and Trocknungs-, Verschweißungs-, & Vergasungs-G.m.b.H.
- Bartmann, L., method of producing groats from the soft endosperm of grains of cereals, (P.), B., 236.
- Barton, A. W., existence and half-life period of radium-C', A., 86.
- Barton, C. H. See Marshall, A. G.
- Barton, F. See De Ros, D.
- Barton, H. A., ionisation in hydrogen chloride vapour, A., 188.
- Barton, H. A., Jenkins, F. A., and Mulliken, R. S., β -bands of nitric oxide. II. Intensity relations and their interpretation, A., 917.
- Barton, H. A. See also Jenkins, F. A.
- Barton, P. D. See Prutzman, P. W.
- Barton-Wright, E. C. See Dorée, C.
- Bartschat, detection of mammal bones in fish meal, B., 614.
- Bartunek, K. See Heuser, E.
- Bary, J. See Cournot, J.
- Bary, P., imbibition of colloids, A., 203.
- adsorption and surface charge. I. Metallic oxides, A., 822.
- Bary, P., and Fleurent, E., variation in the degree of polymerisation of rubber, B., 586.
- Baryscheva, E., synthetic production of different flavours, A., 481.
- Basara, D. See Pushin, N. A.
- Basch, F., and Pollak, L., behaviour of sugars foreign to the body under the action of insulin. I. Effect of insulin on the degree of assimilation of various sugars, A., 1115.
- Bascom, C. H. See Rhodes, F. H.
- Bascou, E. B. G., pre-treatment of a binding material for solid fuels, (P.), B., 210.
- Bascou, E. B. G., and Société Anonyme des Petroles, Houilles, & Dérivés, production of coke and semi-coke, (P.), B., 245*.
- Bascour, F., apparatus for washing and sorting coal, (P.), B., 132.
- Basel, G. See Wacker Ges. für elektrochemische Industrie, m.b.H., A.
- Bass, H., and Erste Böhmsche Kunstseidefabrik Akt.-Ges., manufacture of artificial silk threads from viscose, (P.), B., 138.
- Bass, L. W. See Levene, P. A.
- Basset. See Baudouin.
- Basset, J., apparatus for physical or chemical experiments at various temperatures under liquid pressures of 15,000 kg./cm.², A., 849.
- Basset, H., and Durrant, R. G., inter-relationships of the sulphur acids, A., 843.
- Basset, H. P., altering the viscosity of materials containing cellulose, (P.), B., 362.
- motor fuel, (P.), B., 866.
- Basset, H. P., and Electro Co., purifying salt [potassium alum] crystals from iron contaminants, (P.), B., 298.
- Basset, W. H., jun., and American Brass Co., wrought metal article, (P.), B., 527.
- Bastings, L., temperature coefficient of γ -ray absorption, A., 87.
- Basu, J. K. See Mukherjee, J. N.
- Basu, S. K., and Lakshmanan, M., protective action of Rochelle salt on cupric oxide sol. I., A., 725.
- Bataafsche Petroleum Maatschappij, accuracy of the A.S.T.M. distillation method, B., 131.
- distillation of petroleum and similar hydrocarbons, (P.), B., 578.
- Bataafsche Petroleum Maatschappij, and De Brey, J. H. C., separating a mixture of a large number of volatile liquid and gaseous hydrocarbons, (P.), B., 673.
- Bataafsche Petroleum Maatschappij, and Moser, F. R., manufacture of asphalt or like substances in finely-divided condition, (P.), B., 100.
- treatment of cracking or sludge residues, (P.), B., 806.
- manufacture of finely-divided substances from natural [rubber] emulsions or suspensions, (P.), B., 948.
- Bataafsche Petroleum Maatschappij, and Schönfeld, J. F. P., separation of paraffin wax from oils, (P.), B., 836.
- Bate, L. H. See Nicolet, B. H.
- Bates, F., and Phelps, F. P., new base point on the thermometric scale and the $\alpha = \beta$ inversion of quartz, A., 1018.
- Bates, H. C., glass wool as insulator for refrigeration purposes, B., 411.
- Bates, J. R., and Taylor, H. S., photosensitisation. I., A., 1153.
- Bates, J. R. See also Taylor, H. S.
- Batham, H. N., nitrification in soils. II., B., 855.
- Batschinski, A., pressure-temperature formula for vapours, A., 195.
- Batta, G., effect of formaldehyde on the dissolution of iron in acids, A., 118.
- Battegay, M., nitration process, (P.), B., 809.
- Battegay, M., and Kern, W., trichloromethylsulphonyl chloride, A., 228.
- Battegay, M., and Schmidt, Julius, constitution of the diazonium derivative of 1-amino-2-naphthol-4-sulphonic acid, A., 352.
- Battelle, E. E., purification of [sugar] liquors and manufacture of sugar, (P.), B., 920.
- Battie, M. A., and McDowall, R. J. S., effect of alkali on blood-sugar, A., 986.
- Battle, H. B., determination of free fatty acids [in cotton-seed oil], B., 584.
- Batueas, T., gaseous methyl chloride, A., 102.

- Baudisch, O., and Davidson, D., catalytic oxidation by complex iron salts, A., 321.
 oxidation of 5-aminouracil, A., 365.
 catalytic oxidation of hydantoins, A., 1151.
- Baudisch, O. See also Welo, L. A.
- Baudouin, and Basset, purification and regeneration of vegetable fatty oils, (P.), B., 196.
- Baudouin, A., and Lewin, J., determination of small quantities of sugar; application to blood and to other body-fluids, A., 476.
- Bauer, A. D. See Finley, W. L.
- Bauer, E. See Wolff & Co.
- Bauer, Erwin. See Kraut, H.
- Bauer, F. C. See Smith, R. S.
- Bauer, K. H., and Manicke, P., determination of the iodine value according to the German Pharmacopoeia, B., 417.
- Bauer, O., and Hansen, M., structure of copper-zinc alloys, B., 939.
- Bauer, O., and Vollenbruck, O., hardness and potential of zinc-copper alloys, B., 335.
- Bauer, R., detection of methyl alcohol by use of potassium guaiacolsulphonate, A., 66.
- Bauer, W., and Ropes, M. W., effect of ingestion of calcium lactate on serum-calcium, A., 584.
- Bauer, W. W., developments in controlling tung oil varnishes, B., 84.
- Bauerfeld, F. See Deutsch-Luxemburgische Bergwerks- & Hütten A.-G.
- Baugh, C. J. See Kinkade, W. D.
- Baughman, I. P., tanning-gelatin reaction, B., 306.
- Baughman, W. F. See Jamieson, G. S.
- Baum, F., water content of bleached shellac, and a water-containing artificial shellac, B., 147.
 determination of propionic acid in acetic acid, B., 616.
- Baum, H. See Auwers, K. von.
- Baum, T., phenomena associated with cathode sputtering, A., 317.
- Baumann, E. J., and Kurland, S., changes in inorganic constituents of the blood following adrenalectomy in cats and rabbits, A., 273.
- Baumann, O., Morres and Schützler's method for the determination of fat in milk, B., 539.
- Baume, G., physical chemistry and the problem of roads, B., 843.
- Baumgarten, P., product of the action of sulphuryl chloride on pyridine, its transformation into *N*-pyridinium sulphonic acid, and its application to acylation, A., 674.
- Baumgarten, P., and Glatzel, G., action of alkali hydroxide on the sodium salt of croic glutacondialdehyde; sorbaldehyde, A., 43.
- Baumgarten, P., and Kärger, W., synthesis of 2:4-dihydroxyquinolines, A., 574.
- Baumgarten-Crusius, C. A., production of manure by treatment of organic refuse, B., 344.
 obtaining a culture mixture for fertiliser production, (P.), B., 454.
- Baur, E., and Allemann, E., potential differences at phase boundaries at which partition equilibria exist, A., 23.
- Baur, F. See Jander, G.
- Baur, W., coating wood, iron, or other structures, (P.), B., 371.
- Bauret, P., Portevin, A., and Chevenard, P., alloys to resist the effects of an alternating temperature-gradient, and, in particular, alloys for moulding fine glassware, B., 656.
- Baurier, P. J. H., production of liquid resembling petroleum, (P.), B., 274.
- Bausch, T., Bausch, V. (Scholler, F., & Bausch), and Bausch, V., jun., manufacture of unsensitised films for photographic and cinematographic purposes, (P.), B., 621.
- Bausch, V. See Bausch, T.
- Bausch, V., jun. See Bausch, T.
- Bayer, L. D., factors affecting the hydrogen-ion concentration of soils, B., 498.
- Baw, H., phenyl-*o*-nitrobenzylidimethylammonium chloride, A., 758.
- Baxter, G. P., and Butler, A. Q., revision of the atomic weight of titanium; analysis of titanium tetrachloride. II., A., 86.
- Baxter, G. P., and Starkweather, H. W., density, compressibility, and at. wt. of nitrogen, A., 194.
 density of oxygen and its compressibility below one atmosphere. II., A., 194.
- Baxter, J. G. See British Portland Cement Manufs., Ltd.
- Baxter, J. P. See Harrison, C. F. R.
- Baxter, W. P. See Dalton, R. H., and Glockler, G.
- Bay, Z., and Steiner, W., discharge tubes for producing intense continuous hydrogen spectrum, A., 1117.
- Baybutt, R., Farrow, E. S., jun., and Eastman Kodak Co., bleaching cellulose acetate, (P.), B., 362.
 manufacture of cellulose acetate [soluble in acetone], (P.), B., 774.
- Bayer, L. See Rollett, A.
- Bayer, O. See Braun, J. von.
- Bayer, R. See Bredig, G.
- Bayer & Co. See Farbenfabr. vorm. Bayer & Co.
- Bayerische Stickstoff-Werke A.-G., apparatus for the production of ammonium sulphate, (P.), B., 965.
- Bayle, E., and Amy, L., application of spectrum analysis to the detection of metallic impurities, A., 845.
- Baylis, J. R., concrete deterioration, more especially with reference to its use for conduits and in lining iron pipes, B., 524.
 treatment of water to prevent corrosion, B., 717.
- Bayliss, L. E., conductivity method for determination of carbon dioxide, A., 745.
- Bazlen, M., hyposulphurous acid, A., 842.
- Bazyrina, K. See Kostytshev, S.
- Beach, H. T., and Bond, P. A., systems formed by certain inorganic compounds with liquid sulphur dioxide, A., 405.
- Beacham, T. E. See Garland, C. S.
- Beadles, J. R. See Mitchell, H. H.
- Beal, C. L. See Kodak, Ltd.
- Beal, G. D., and Souther, B. L., purification of toluene for thermoregulators, A., 955.
- Beal, G. D. See also McGregor, R. R.
- Beale, A. See Hele-Shaw, H. S.
- Beam, A. M., continuously-operating ore or ore-shale converting retort furnace, (P.), B., 449.
- Beams, J. W., and Allison, F., difference in time lags in the disappearance of the electric double refraction behind that of the electric field in several liquids, A., 610.
- Beams, J. W., and Rhodes, P. N., time intervals between the appearance of certain spectrum lines of helium and of mercury, A., 83.
- Beams, J. W. See also Hoxton, L. G.
- Bean, C. P. See Rowe, F. M.
- Bean, O. U., production of gas, (P.), B., 721.
- Bean, O. U., and Bean Process Syndicate, Inc., method of producing gas, (P.), B., 385.
- Bean Process Syndicate, Inc. See Bean, O. U.
- Beans, H. T., and Kiehl, S. J., sodium monometaphosphate and its acid hydration, A., 948.
- Beard, H. G. See Hodgson, H. H.
- Beard, H. H., nutritive value of plastein, A., 275.
- Beard, H. H. See also Rapport, D.
- Beard, H. R., preparing fish for canning, (P.), B., 123.
- Bearden, J. A., measurements and interpretation of the intensity of X-rays reflected from sodium chloride and aluminium, A., 191.
- Beardmore, F., and Boulton, W., Ltd., machine for sifting potter's slip, powdered substances, etc., (P.), B., 655.
- Beattie, P., and Milroy, T. H., role of phosphates in carbohydrate metabolism in skeletal muscle. II. Comparison of the muscles of normal, fatigued, and depancreatized animals, A., 72.
- Beattie, J. A., six-place tables of the Debye energy and specific heat functions, A., 101.
 pressure-volume-temperature relation for gaseous ethyl ether, II., A., 615.
- Beattie, J. A., and Bridgeman, O. C., new equation of state for fluids. I. Application to gaseous ethyl ether and carbon dioxide, A., 819.
- Beatty, H. A. See Gebauer-Fülneegg, E.
- Beaufort, H., extraction of albumino-casins of vegetable origin, and separation of these albumins from amylaceous matters, (P.), B., 539.
- Baumont, A. B., Sessions, A. C., and Kelly, O. W., nitrate accumulation under a mulch, B., 855.
- Baumont, E. G. E., and Anglo-American Oil Co., apparatus for storing inflammable liquids or for supplying such liquids, (P.), B., 135*.
- Baumont, G. See Le Roy, P. M.
- Beavers, G. E. See Jones, E. M.
- Beber, M. See Morgulis, S.
- Bech, P. A. See Arnesen, G.
- Bechdel, S. I., and Honeywell, H. E., relation between the vitamin-B content of the ration eaten [by cows] and of the milk produced, A., 1223.

- Bechert, K., characteristic values in the limiting value problem of wave mechanics, A., 916.
- Bechgaard, P., jaws or breaker plates for stone crushers and the like, (P.), B., 128.
- Bechhold, H., and Heymann, E., impregnation of wood and removal of its "ash" by electrical means, B., 603.
- Bechhold, H., and Keiner, L., separation of trypsin and enterokinase by ultrafiltration, A., 1221.
- Beck, G., analogies to the gas laws in the solid state of matter; (electron gas laws), A., 520.
hypothesis that light quanta and electrons are discrete elements, A., 807.
- Beck, J. van der. See Darapsky, A.
- Beck, K. See Wagner, H.
- Beck, R., duralumin, B., 143.
- Beck, V. See Weinland, R.
- Beck, W., and Deutsche Gold- & Silber-Scheideanstalt vorm. Rössler, destruction of animal pests, (P.), B., 622.
- Beckenkamp, J., the crystal as a homogeneous polyhedron and the relations between the physical properties of crystals and the various groups of geometrical crystallography, A., 99.
- Becker, A. See Busch, M.
- Becker, A. E., and Standard Development Co., manufacture of a lubricant, (P.), B., 516.
- Becker, E., apparatus for combustion of liquid fuel, (P.), B., 211.
- Becker, E. H. See Martus, M. L.
- Becker, H., use of fluorspar in the cement industry, B., 908.
- Becker, H., and Siemens & Halske Akt.-Ges., manufacture of drying varnishes, (P.), B., 822.
- Becker, J., and Koppers Co., combination [coke] oven, (P.), B., 769.
- Becker, J. See also Koppers Co.
- Becker, J. E. See Simmonds, N.
- Becker, K., X-ray method of determining coefficient of expansion at high temperatures, A., 95.
investigation of metallic layers by X-rays, A., 501.
X-ray investigation of the grain size and of tempering in tungsten wire, A., 503.
crystal structure of thallium, A., 503, 1129.
- Becker, K., and Hölbling, R., properties of tungsten carbide, B., 439.
- Becket, F. M., and Electro Metallurgical Co., manufacture of molybdenum steel, (P.), B., 169, 256.
treatment of metal baths, (P.), B., 583.
chromium-plated carbon article [mould], (P.), B., 726.
- Beckett, E. G. See Woodcock, W. G.
- Beckinsale, S., and Waterhouse, H., lead alloys, (P.), B., 606.
- Beckinsale, S. See also Moore, H.
- Beckman, J. W., and Roeding, G. C., pickling of fruit, etc., (P.), B., 376.
- Beckmann, H., diaphragms for primary or secondary cells, electrolytic cells, filters, etc., (P.), B., 81.
process for the production of rubber, (P.), B., 119.
applying liquids [by means of porous rubber], (P.), B., 636.
- Bedford, C. S., dyeing artificial silk [with logwood], (P.), B., 186.
- Bedford, C. S. See also Craven, A. B.
- Bedford, C. W., Goodrich Co., B. F., and Goodyear Tire & Rubber Co., vulcanisation of caoutchouc, (P.), B., 150.
- Bedos, P. See Godchet, M.
- Bedreag, C. G., spectrum of copper; complex spectra of copper, A., 2*.
- Beebe, M. C., Herlinger, H. V., and Wadsworth Watch Case Co., photographic medium, (P.), B., 61.
- Beebe, R. A., heat of adsorption of carbon monoxide on a copper catalyst, A., 23.
- Beeby, G. H. See Bramley, A.
- Beek, P. A. A. van der. See Jorissen, W. P.
- Beekhuis, H. A. See Curtis, H. A.
- Beer, O. L., production of montan wax, (P.), B., 181.
- Beetlestone, N. C. See Hind, H. L.
- Begas, M. See Alberti, E.
- Beghin, P. See British Alizarine Co., Ltd.
- Behaghel, O., acidity and isomerism of thioglycollic acid derivatives, A., 148.
- Behmer, O. See Holmes, R. C.
- Běhounek, F., radioactivity in the environs of the pitchblende mines of St. Joachimsthal, Czechoslovakia, A., 605.
- Behr, H. C., centrifugal apparatus and process for continuously separating liquids from solids, (P.), B., 959.
- Behre, J., structure of rubber, B., 119.
- Behrens, W. U., simplification of electrometric p_H determinations, A., 124.
- Behringwerke Akt.-Ges., preparation of salts of lipid acids, (P.), B., 573.
- Behrman, A. S., zeolite softening [of water], B., 430.
water purification by electro-osmosis, B., 958.
- Behrman, A. S., and General Zeolite Co., preparation of a water-softening [base-exchange] reagent, (P.), B., 718.
- Beifuss, W. See Skraup, S.
- Beil, A., Meyer, W. A., Reckberg-G.m.b.H., A., and Braun-G.m.b.H., G., extracting fats from textiles, (P.), B., 745.
- Beining, H., Zeeman effect in tungsten, A., 491.
- Beiser, A. See Fringsheim, H.
- Bek, E. G., manufacture of plated articles, (P.), B., 633.
- Bekier, E., and Rodziewicz, K., influence of stirring on velocity of reaction in heterogeneous systems, A., 426.
- Bekier, E., and Trzeciak, S., rate of dissolution of copper in aqueous ferric chloride solutions, A., 116*.
- Belani, E., determination of paraffin scale in crude paraffin wax, B., 272.
saccharin drying, B., 505.
- Belasio, R., and Mellana, E., electrolytic determination of zinc in solutions acid with sulphuric acid, A., 953.
- Belcke, E. See De Brouckère, M. L., and Pinkus, A.
- Belcot, C., volumetric determination of magnesium in industrial waters, B., 10.
alkalimetric determination of the hardness of industrial waters, B., 62.
- Belin, J. See Delaville, M.
- Belin, P., influence of diet on fat reserves, A., 274.
generality of the distinction between two categories of fatty matter; constant element and variable element, A., 281.
- Belin, P. See also Terroine, E. F.
- Belinfante, A. H. See Böeseken, J.
- Bell, E. V., and Bennett, G. M., *cis-trans*-isomerism of disulphoxides, A., 958.
- Bell, E. V., Bennett, G. M., and Hock, A. L., decomposition of some halogenated sulphides and the nature of the "polymeric" ethylene sulphides, A., 958.
- Bell, F., and Kenyon, J., diphenyl series. III. Derivatives of 4-hydroxydiphenyl, A., 145.
- Bell, F., and Robinson, P. H., diphenyl series. V. Derivatives of 4-amino- and 4-hydroxy-diphenyl, A., 657.
diphenyl series. VI. Configuration of diphenyl derivatives, A., 876.
diphenyl series. VII. Relative stability of optically active diphenic acids, A., 1069.
- Bell, F. C., combined condenser and oil separator, (P.), B., 323.
- Bell, F. K., infra-red absorption spectra of organic derivatives of ammonia. V. Primary, secondary, and tertiary alkylamines, A., 862.
infra-red absorption spectra of organic compounds of sulphur. I. Aliphatic mercaptans and sulphides, A., 1052.
- Bell, F. K. See also Abel, J. J.
- Bell, G. S. See Adamson, C. H.
- Bell, H. S., action of formaldehyde on wool, B., 293.
- Bell, J. E., and Combustion Engineering Corporation, [coal] grinding and drying apparatus, (P.), B., 866.
- Bell, J. E. (Bell, L. R., extrix.), Isom, B. W., and Sinclair Refining Co., apparatus for cracking hydrocarbons, (P.), B., 961.
- Bell, J. E., and Sinclair Refining Co., oil still, (P.), B., 180, 386.
fractional distillation and condensation [of oil], (P.), B., 595.
- Bell, J. E. See also Isom, E. W., and Kreisinger, H.
- Bell, R. P. See Hartley, H.
- Bell, R. W., manufacture of crude lactose, (P.), B., 234.
- Bell Telephone Laboratories, Inc., magnetic materials [iron-nickel alloys], (P.), B., 144.
producing high permeability in magnetic material, (P.), B., 257.
- Belladen, L., conductivity of electrolytes in fused acetamide, A., 831.
conductivity and transport numbers of cadmium salts in acetamide, A., 831.
- Bellak, R., cementation of iron and steel, (P.), B., 302.
- Bellamy, A. J., and Bellamy & Co., Ltd., A., preservation of eggs, (P.), B., 92.
- Bellamy, A. J., and Egg Patents, Ltd., egg-preservation process and product thereof, (P.), B., 763*.
- Bellamy & Co., Ltd., A. See Bellamy, A. J.
- Bellerby, C. W. See Parkes, A. S.
- Bellinger, M. See Lennox, W. G.

- Bellet, *H.*, photographic inversion by heat, B., 174.
- Bellone, *A. F. S.*, and Société Chimique des Usines du Rhône, reduction of halogenated hydrocarbons, (P.), B., 460*.
- Bellwood, *R. A.* See Downs, *C.*
- Beloglazov, *K. F.*, production of titanium tetrachloride, B., 652.
- Belton, *J. W.*, Griffith, *R. O.*, and McKeown, *A.*, thermal reactivity of ozone in presence of hydrogen, A., 114.
- Bemberg, *J. P.*, Akt.-Ges., production of a basic copper sulphate suitable for the manufacture of ammoniacal copper oxide cellulose solutions for the spinning of artificial silk by the stretch-spinning process, (P.), B., 188.
- manufacture of twisted artificial silk from cuprammonium cellulose solutions by the stretch-spinning process, (P.), B., 905.
- Benary, *E.*, derivatives of pyridine and piperidine obtained from hydroxymethylene ketones, A., 573.
- acylation of derivatives of *NN'*-ethylenebis- β -aminocrotonic acid and similarly constituted substances, A., 1058.
- Benary, *E.*, and Kerekhoff, *W.*, acylation of β -aminocrotonanilide, A., 45.
- Benati, *F.* See Beretta, *A.*
- Bencker, *F.* See I. G. Farbenind. A.-G.
- Benckiser, *Z.*, Reimann, *A.*, Reimann, *A.*, jun. (Benckiser, *J. A.*), and Draibach, *F.*, stabilisation of bleaching baths [containing peroxides or persalts], (P.), B., 252.
- maintaining the effectiveness of washing and bleaching powders containing soap and oxygen-evolving compounds, (P.), B., 661.
- Bencowitz, *J.* See Levene, *P. A.*
- Benda, *L.* See I. G. Farbenind. A.-G.
- Bendecky, *M. A.*, regeneration of fats from the wastes in yeast manufacture, B., 953.
- Bender, *P.* See Cornog, *J.*
- Bendetzky, *M. A.* See Plotnikov, *V. A.*
- Bendixen, *N.*, and Milkaue, Ltd., apparatus for mixing liquids with solid or semi-solid substances or with other liquids, (P.), B., 320.
- Benedetti, *E.*, modifications in the course of alcoholic fermentation by the action of the oscillating electromagnetic field on yeast, A., 1221.
- Benedetti-Pichler, *A.*, qualitative micro-analysis and quantitative micro-analysis of cobaltcyanides. I. Potassium cobaltcyanide as a reagent for the detection of zinc and bismuth. II. The Vanino-Treubert reaction for bismuth, A., 331.
- Benedicks, *G.*, and Löfquist, *H.*, theory of the growth of cast iron repeatedly heated, B., 445.
- Benedict, *E. M.* See Atchley, *D. W.*, and Loeb, *R. F.*
- Benedict, *S. R.* See Newton, *E. B.*
- Benelli, *T.* See Bombini Parodi-Delfino.
- Beneš, *Z.* See Brunner, *K.*, and Grüner, *R.*
- Benesch, *E.*, determination of moisture in smokeless powder, B., 716.
- Benfey, *H.*, solution for depilating hides, (P.), B., 535.
- Beng, *E.* See Skraup, *S.*
- Bengough, *G. D.*, and Stuart, *J. M.*, anodic oxidation of aluminium and its alloys as a protection against corrosion, B., 16.
- Bengough, *G. D.*, Stuart, *J. M.*, and Lee, *A. R.*, preparation of low-conductivity water, A., 1045.
- Benin, *G. S.*, storing sugar beet by drying, B., 952.
- Benin, *G. S.* See also Kukhareenko, *I. A.*
- Benischek, *A.* See I. G. Farbenind. A.-G.
- Benjamin, *L. R.*, grinding of immature eucalypts for mechanical pulp, and possibilities of manufacturing newsprint in Australia, B., 871.
- Benjasch, *M.*, bacteriological detection of the sugars in urine, A., 372.
- Benner, *H. P.* See Egloff, *G.*
- Benner, *R. F.*, and Fry Glass Co., *H. C.*, heat-resisting glass, (P.), B., 443.
- Bennett, *A. C.*, [electrical] treatment of seeds to augment their cultural value, (P.), B., 826.
- Bennett, *A. N. C.*, vapour pressures and activities of aqueous solutions of sodium silicates, A., 729.
- Bennett, *C. L.* See Brady, *O. L.*
- Bennett, *G. M.*, and Berry, *W. A.*, monothioethylene glycol. III. Nitrophenyl thioethers, A., 870.
- influence of the sulphur atom on the reactivity of adjacent atoms or groups. II. Comparative reactivities of chlorine in some β - and γ -chlorosulphides, A., 871.
- Bennett, *G. M.*, and Hock, *A. L.*, benzyl δ -chlorobutyl ether: a new unsymmetrical derivative of tetramethylene glycol, A., 355.
- influence of the sulphur atom on the reactivity of adjacent atoms or groups. I. Qualitative comparison of reactivities of chlorine and hydroxyl in α -, β -, γ -, and δ -positions to a sulphur atom, A., 355.
- the supposed dimethiodide of trimethylene sulphide, A., 1166.
- Bennett, *G. M.*, and Scoria, *L. V. D.*, penthian series. I. Action of sodium ethoxide on ethyl β -thiodipropionate, A., 228.
- Bennett, *G. M.* See also Bell, *E. V.*
- Bennett, *H. B.* See Shohl, *A. T.*
- Bennett, *H. G.*, standardisation of hide powder. II. and III., B., 52, 534.
- Bennett, *J.*, and Consolidated Textile Corporation, manufacture of finished [regenerated cellulose] fabric, (P.), B., 776.
- Bennett, *J. A. J.*, electricity in flames, A., 188.
- ionisation in flames of various organic substances, A., 1001.
- electrical conductivity of vapours and liquid drops during incipient combustion, A., 1008.
- Bennett, *J. F.*, and Hadfield, *J.*, [bituminous] material for road surfaces, (P.), B., 703.
- Bennett, *W.*, corrosion of ship plates and rivets, B., 167.
- Bennett, *W. H.*, and Daniels, *F.*, infra-red absorption spectra. II. Chloroacetic acids, A., 186.
- Bennewitz, *K.*, investigations in the critical region. II. Specific heats at constant pressure of ethyl ether above and below the critical point, A., 315.
- Bennewitz, *K.*, and Deljannis, *A.*, absolute electrolytic solution tension. II. Electrocapillary curve of mercury, A., 316.
- Bennewitz, *W.*, variation in the velocity distribution of photoelectric electrons with outgassing and gassing processes with palladium and platinum, A., 913.
- Bennion, *E. B.*, function of oils and fats, and emulsions of oil and water in bread-making with special reference to gluten formation and modification, B., 90.
- Benoit, *F.* See Guntz, *A.*
- Benoit, (*Mlle.*) *G.* See Fournau, *E.*
- Benrath, *A.*, systems: $\text{CoCl}_2\text{--MCl}$ or $\text{MCl--H}_2\text{O}$, A., 829.
- Benrath, *A.*, and Schröder, *W.*, [non-existence of] magnesium sulphate octahydrate, A., 430.
- Bensa, *F.*, preparation of vat dyes of the perylene series, (P.), B., 698.
- Bensa, *F.*, and Pongratz, *A.*, manufacturing nitriles of the perylene series, (P.), B., 29.
- Bensa, *F.*, and Stieger, *K.*, manufacture of dinitro-products of perylene and its halogen derivatives, (P.), B., 579.
- Bensa, *F.* See also Penecke, *W.*, and Zinke, *A.*
- Bensing, *J. R. P.* See Keeler, *J. J.*
- Bensmann, *H.*, regeneration of lubricating oils, (P.), B., 516.
- Benson, *I. W.*, mixing machine, (P.), B., 576.
- Benson, *M.*, separation of mixtures of gases, (P.), B., 929.
- Bentivoglio, (*Miss*) *M.*, rate of growth of crystals in different directions, A., 716.
- Bentley, *G. H.*, and Appleby, *E. G.*, gas producers, (P.), B., 467.
- Bentley, *J. H.*, rotary kilns and furnaces, (P.), B., 175, 239.
- tube mills, (P.), B., 575.
- Bentley, *W. H.*, and Blyth, *W.*, & Co., Ltd., manufacture of polynitroamines, (P.), B., 275.
- Bentley, *W. H.*, Catlow, *B.*, and Blyth, *W.*, & Co., Ltd., manufacture of lead nitrate, (P.), B., 409.
- Bentley, *W. H.*, Coates, *W. M.*, and Riley, *J.*, & Sons, Ltd., manufacture of colloidal or the like materials, (P.), B., 207.
- Benton, *A. F.*, kinetics of catalysed gas reactions in flow systems, B., 399.
- Benton, *A. F.*, and Elgin, *J. C.*, catalytic synthesis of water vapour in contact with metallic silver, A., 118.
- catalytic synthesis of water vapour in contact with metallic gold, A., 1150.
- Benton, *A. F.*, and Williams, *T. L.*, catalytic oxidation of carbon monoxide in contact with quartz glass, A., 28.
- Benton, *A. G.* See Whittier, *E. O.*
- Benton, *M.*, and Canadian American Finance & Trading Co., Ltd., method and apparatus for desulphurising and fractionally separating petroleum, (P.), B., 163.
- Benvegnin, *L.*, sublimation apparatus, A., 335.
- Benvenuto, *G.* See Garino, *M.*
- Benz, *P.* See Karrer, *P.*
- Benzinger, *R. F.* See Cope, *F. T.*

- Benzol-Verband G.m.b.H., [treatment of fuel] alcohol and its homologues and mixtures containing the same, (P.), B., 245.
purification of benzene, benzine, and similar motor fuels, (P.), B., 357.
- Benzol-Verband G.m.b.H. See also Ostwald, W.
- Béraneck, J. See Berthoud, A.
- Berardi, J. B., and Canan, M. C., [assay of] *Cascara sagrada*, B., 92.
- Berchem, R. G. See Myddelton, W. W.
- Berczeller, L., and Wastl, H., nutrition and statistical variations. IV. Chemical properties of various sorts of wheat, A., 388.
- Beregeckoff, D. See Vilella, J. R.
- Berend, G. See Ohle, H.
- Berenger-Calvet, (Mme.), calorimetry by compensation using the Joule and Peltier effects; heat of dissolution and heat of slow reactions, A., 629.
- Bereslavsky, E. V., motor fuels, (P.), B., 900.
- Beretta, A. [with Benati, F.], 2-N-phenyl- ψ -aziminoquinoline, A., 577.
- Beretta, A. [with Massarotti, R., and Scalia, L.], 2-phenyltriazole-phthalic acid: hydroxyl derivatives of 2-N-phenyl- $\beta\beta$ -naphthatriazolequinone. I., A., 577.
- Beretta, A. See also Charrier, G.
- Berezovska, F. I., electronic nature of isomeric transformations. II., A., 398.
- Berg, L., hydrates of lithium chlorate, A., 1042.
- Berg, O., and Imhoff, M., weighting of fibres, (P.), B., 248*.
weighting of fibres [silk], (P.), B., 599.
- Berg, P., and Müller, J., determination of tartaric acid in beverages, B., 24.
- Berg, P. See also Kickton, A.
- Berg, R., detection and rapid determination of chlorides in presence of bromides and iodides, A., 35.
determination of iodide in presence of chloride or bromide, and determination of each halide in a mixture of the three, A., 124.
determination and separation of copper by means of 8-hydroxyquinoline, A., 436.
separation and determination of metals by the use of 8-hydroxyquinoline. II. Separation and determination of magnesium, A., 639.
metallic derivatives of 8-hydroxyquinoline and their analytical application, A., 674.
separation and determination of metals by means of 8-hydroxyquinoline. III. Zinc, A., 745.
separation and determination of metals by means of 8-hydroxyquinoline. IV. Cadmium, A., 847.
separation and determination of metals by means of 8-hydroxyquinoline. V. Aluminium, A., 848.
analysis of quinosol (2-hydroxyquinoline) preparations, B., 58.
- Berg, R., and Wurm, O., salts of the halogen acids of bismuth and cadmium with organic bases and their analytical application, I., A., 847.
- Berge, G., and Spurrier, H., process for decomposing insoluble minerals, (P.), B., 848.
- Bergé, J., improvement of the Steffen process of extracting sugar from beet molasses, B., 663, 730.
- Bergeder, W. See Kappen, H.
- Bergedorfer Eisenwerk Akt.-Ges., removal by centrifuging from fluid hydrocarbons of the solid hydrocarbons precipitating at low temperatures, (P.), B., 357.
separation of liquids and solids of low melting point by centrifuging, (P.), B., 671.
- Bergeim, F. H., and Du Pont de Nemours & Co., E. I., triazonitrate [azidonitrate] explosives; explosive composition, (P.), B., 380.
production of explosives, (P.), B., 830.
- Bergel, F., explosions with benzazide, A., 969.
- Bergell, C., methods of saponification in the light of modern saponification theory, B., 49.
- Bergell, P., preparation of a lecithin derivative, (P.), B., 573.
- Bergen, H. E., apparatus for recovering solids from press liquids, (P.), B., 719.
- Berger, E. E., effect of steam on the decomposition of limestone, B., 476.
- Berger, E. E. F. See Vickers, Ltd.
- Berger, E. F. See Jenkins, J. D.
- Berger, G., quantitative comparison of electron displacement and alternate polarity effects in aromatic compounds, A., 873.
- Berger, G., and Olivier, S. C. J., hydrolysis of aromatic acid chlorides and the theory of induced alternate polarities, A., 835.
method of hydrolysing amides and nitriles, A., 1185.
- Berger, G. See also Olivier, S. C. J., and Schulze, H.
- Berger, J. See Blatherwick, N. R.
- Berger, R. See Barrenscheen, H. K.
- Bergh, F. van den, production of magnesia from ores containing magnesium oxide or carbonate, such as dolomite, (P.), B., 965.
- Bergh, S. V., furnace and apparatus for utilising shale or other bituminous materials, (P.), B., 245*.
- Bergh, Z. van den, Jagt, B. G. H. van der, and Kuyk, F. A. J. van, process and apparatus for the industrial treatment of coconuts and their constituents, particularly coconut fibres, (P.), B., 472.
- Bergius, F., obtaining hydrogenation gas for hydrogenating coal and hydrocarbons from the waste gases of the hydrogenation, (P.), B., 66.
hydrogenating and cracking carbonaceous matter, (P.), B., 133.
- Bergman, A. G., double decomposition in absence of solvents, A., 14.
- Bergman, A. G., and Henke, T. A., double decomposition in absence of solvents. VI. Irreversible salt pair $\text{HgCl}_2 + \text{Ag}_2\text{I}_2 \rightarrow \text{Ag}_2\text{Cl}_2 + \text{HgI}_2$, A., 112.
- Bergman, G. K., relation between analytical "chlorine values" and factory bleach consumptions for wood pulps, B., 138.
- Bergmann, M., structure of complex carbohydrates and proteins, A., 166.
structural problems of the associated lactolides and their relation to the chemistry of higher carbohydrates, A., 341.
unsaturated dipeptide-anhydrides, and dehydration of amino-acid derivatives, A., 474.
protection of animal fibres against attack by alkaline liquids, (P.), B., 406.
- Bergmann, M., and Delis, D., transformations of peptide substances. XVIII. Conversion of α -amino- β -hydroxy-acids into α -ketonic acids and of their hydantoins into keto-acids and carbamides, A., 1202.
- Bergmann, M., Immendorfer, E., and Loewe, H., treatment of animal fibres, (P.), B., 247.
treatment of vegetable fibres with alkalis, or with oxidising or reducing agents, (P.), B., 965.
- Bergmann, M., and Knehe, E., lichohexosan and lichenin, A., 341.
individual group of amylose from potato starch, A., 342.
- Bergmann, M., Knehe, E., and Lippmann, E. von, cryoscopy of carbohydrate acetates, A., 1173.
- Bergmann, M., and Köster, H., synthesis of dipeptides containing arginine; isomeric phenylalanylarginines and their conversion into phenylalanylmethionine, A., 755.
dissolution and reprecipitation of collagen or glutin, (P.), B., 949.
- Bergmann, M., and Lippmann, E. von, alkyl lactolides of salicylaldehyde [α -2-oxidobenzyl ethers], A., 460.
- Bergmann, M., and Michalis, G., aucubin, A., 545.
- Bergmann, M., and Miekeley, A., transformations of peptide substances. XVII. New desmotropic amino-acid anhydrides of piperazine type; degradation of amino-acids; serine as dehydrogenating agent, A., 1202.
- Bergstein, M., catalytic minimum point. II. Iodine-acetone reaction in buffer solution, A., 321.
- Bergstein, M., and Kilpatrick, M., jun., catalytic minimum point, A., 214.
- Bergstrom, F. W., displacement of metals from solutions of their salts by less electropositive elements. III. Action of liquid ammonia solutions of salts of the alkali and alkaline-earth metals on magnesium and other elements, A., 30.
- Beriger, C. R., zinc white from metallic zinc, B., 947.
- Berk, L. H. van. See Koltzoff, I. M.
- Berkmann, S., Böhm, J., and Zoehrer, H., anisotropic copper, silver, and gold, A., 201.
- Berkmann, S., and Zoehrer, H., magnetic properties of various substances, A., 402.
physico-chemical properties of mercurisulphosalicylates. I. and II., A., 933.
- Berl, E., production of active charcoal, (P.), B., 210.
recovery of the drying agent retained by moist fuels after being dried, (P.), B., 466.
- Berl, E., and Burkhardt, H., [rapid, dry method for the determination of carbon and hydrogen], A., 66.
- Berl, E., and Immel, A., displacement of moisture in lignite by oils, B., 690.

- Berl, E., and Kullmann, A., graphic correction for the exposed thread for readings of mercury-in-glass thermometers, A., 437.
determination of m. p., A., 437.
- Berl, E., and Ratis, L., analyses of mixtures of water, methyl alcohol, and ethyl alcohol, B., 955.
- Berl, E., and Werner, G., combustion limits under high pressure of mixtures of air with inflammable gases and vapours, B., 546.
- Berlin, D. W., determinations of specific gravity of iron and low-carbon steel in a molten condition, B., 487.
absorption refrigerating apparatus, (P.), B., 544.
- Berlin, D. W., and Aktiebolaget Ferrolegeringar, production of rustless iron and steel, (P.), B., 523*.
- Berlin-Karlsruher Industriewerke Akt.-Ges., [spinning head] for spinning artificial silk, (P.), B., 362.
- Berliner, J. F. T., and May, O. E., vapour pressure. III. Tolidines, A., 506.
- Berliner, J. F. T. See also May, O. E.
- Berliner, R. See I. G. Farbenind. A.-G.
- Berlingozzi, S., hydrophthalides. V. Relation between constitution and odour, A., 561, 970*.
hydroxyazoquinoline derivatives, A., 675.
- Berlingozzi, S. [with Mennonna, C., and Palma, A.], hydrophthalides. III. Derivatives of Δ^2 -dihydrophthalide, A., 560, 970*.
- Berlingozzi, S., and Burg, W. E., β -substituted quinolines, A., 674.
3-substituted quinolines, A., 1087.
- Berlingozzi, S., and Cione, L., hydrophthalides. II. Action of sodium amalgam on monoalkylidene-phthalides, A., 569, 970*.
- Berlingozzi, S., and Di Mase, G., oil of *Salvia spinosa*, B., 787*.
- Berlingozzi, S., and Lupo, G., hydrophthalides. IV. *n*-Butyl derivative of Δ^6 -tetrahydrophthalide, A., 561, 970*.
- Berlingozzi, S., and Tureo, A., quinoline-4-carboxylic acids, A., 674, 1086.
 β -substituted derivatives of "atophan" [2-phenylquinoline-4-carboxylic acid], A., 1087.
- Bernal, J. D., interpretation of X-ray, single-crystal, rotation photographs, A., 9.
- Bernard, H. See I. G. Farbenind. A.-G.
- Bernard Ormont Associates, Inc. See Ormont, B.
- Bernardi, A., compounds of aromatic aldehydes with dimethylhydroresorcinol (dimethylcyclohexanedione), A., 563.
green cobalt compounds, A., 636.
- Bernardi, A., and Tartarini, M., mercured benzidine compounds, A., 580.
peptone. V., A., 582.
- Bernatzky, W. See Stahlwerke Akt.-Ges.
- Bernays, P., thermodynamics of the adsorption isotherm, A., 722.
- Berndt, K. See Schwalbe, C. G.
- Berner, E., ratio of the heats of combustion of benzoic acid and salicylic acid, A., 315.
- Bernhardt, F., transmutation of mercury into gold by means of a high-pressure mercury arc of great current density, A., 5.
- Bernoulli, W. See Hoz, H.
- Bernstein, A., catalase content of blood in experimental anaemia, A., 373.
influence of nutrition on the blood catalase content, A., 382.
- Bernton, A. See Euler, H. von.
- Berrisford, W. H., apparatus for separating coal from dirt and similar foreign substances, (P.), B., 547.
separating coal from dirt and similar substances, (P.), B., 625, 931*.
- Berry, E. R., and General Electric Co., quartz working, (P.), B., 333*.
- Berry, W. A. See Bennett, G. M.
- Berryhill, J. G. See Reed, C. J.
- Bert, L., action of trichloroethylene, $\alpha\alpha\beta$ -trichloroethane, and $\alpha\alpha\beta$ -tetrachloroethane on magnesium phenyl bromide, A., 1051.
preparation of ethoxalyl chloride, A., 1054.
- Bert, L., and Dorier, P. C., preparation of β -chloroallyl chloride, A., 39.
preparation and physical constants of γ -phenylpropinene, A., 47.
nitration of cumene, A., 1060.
preparation and constants of phenylpropinene and certain of its homologues, A., 1061.
- Berten & Co., G.m.b.H., boiling and evaporation of sugar solutions, (P.), B., 921.
apparatus for evaporation or concentration of aqueous solutions, such as sugar solution, (P.), B., 928.
- Berth, O., blank test in glycerin analysis by the acetin method (I.S.M.), B., 707.
- Bertheloot, J. See Marie, C.
- Berthelot, A., and Amoureux, G., auto-elimination of ammonia in bacterial cultures, A., 1114.
- Berthelsen, K. C. See Van Slyke, D. D.
- Bertho, A., triazines; action of Grignard reagents on carbonyl azides, A., 679.
- Bertho, A., Curtius, T., and Schmidt, F., action of sulphuryl azide on *p*-cymene, A., 1085.
- Bertho, A., and Nüssel, H., 4-hydroxypyrazoles and their tautomerism, A., 1204.
- Berthon, R., manufacture of films for colour cinematography, (P.), B., 622.
- Berthoud, A., and Béranek, J., kinetics of the addition of bromine to cinnamic acid and to stilbene under the influence of light, A., 528.
- Berthoud, A., Briner, E., and Schidlof, A., ebullioscopic paradox, A., 1029.
- Berthoud, A., and Niolet, G., kinetics of the oxidation of hydriodic acid by free oxygen in darkness and under the action of light, A., 736.
addition of bromine to α -phenyleinnamionitrile under the influence of light, A., 739.
- Bertin, C. O., unfermentable and bacteria-resisting alcoholic liquids, (P.), B., 922.
- Bertisch, R., solubility of mixed crystals, A., 197.
- Bertolo, P., action of hydrochloric acid on desmotroposantonin, A., 149.
product of the scission of artemisic acid (1:4-dimethyl-7-ethyl- β -naphthol), A., 149.
preparation of *d*-santonous acid from desmotroposantonin, A., 150.
- Bertram, H. See Tröger, J.
- Bertram, S. H., preparation of pure oleic acid, A., 750.
determination of the higher saturated fatty acids insoluble in water in fats and fatty acid mixtures, B., 450, 727.
- Bertram, S. H. See also Waterman, H. I.
- Bertrand, G., nature of ferrase and certain oxydases, A., 174.
importance of minute chemical constituents of biological products; nickel, cobalt, and insulin, A., 594.
nomenclature of glucides, A., 960.
- Bertrand, G., and Mischebœuf, M., nickel and cobalt content of the pancreas, A., 168.
- Bertrand, G., and Nakamura, H., physiological importance of nickel and cobalt, A., 992.
- Bertrand, G., and Perietzeanu, D. J., presence of sodium in plants, A., 488, 704*.
relative proportions of potassium and sodium in plants, A., 1116.
- Bertrand, G., and Silberstein, L., total sulphur content of arable soil, B., 566.
determination of sulphur in arable soil, B., 709.
total sulphur content of some cultivated soils, B., 951.
- Bertucci, F. See Fester, G.
- Berz, K. C., formation of hailstones and cause of the polymorphic behaviour of ice, A., 411.
- Besemfelder, E. R., clarification of large quantities of liquids, e.g., sewage and industrial waste liquors, by dam- or crater-filtration, B., 622.
production of ammonium nitrate and nitrite, etc. and generation of additional power from the combustion gases in internal-combustion engines, (P.), B., 804.
- Besson, E., explosives containing hygroscopic materials, (P.), B., 894.
- Best, C. H., Dale, H. H., Dudley, H. W., and Thorpe, W. F., vaso-dilator constituents of certain tissue extracts, A., 371.
- Best, R. J. See Pennycuik, S. W.
- Besta, A., method and apparatus for annealing metals, ceramic and other materials, (P.), B., 544.
- Bethke, R. M., Kennard, D. C., and Sassaman, H. L., fat-soluble vitamin content of egg-yolk in relation to diet, A., 595.
- Bethlehem Steel Co. See Shimer, W. R.
- Betterton, J. O., and American Smelting & Refining Co., recovery of zinc as sulphate from dross; recovering metal [zinc], (P.), B., 114.
- Betti, M., and Bonino, G. B. [with Vaglio, V.], mineral waters. I. Method of representing the composition of mineral waters, A., 517.
- Betts, A. G., chemical process [recovery of fluorides], (P.), B., 11.

- Betts, R. L., Muspratt, R., and Plant, S. G. P., reactions of 1-anilino-cyclohexane-1-carboxylic acid; synthesis of ψ -indoxylspiro-cyclohexane, A., 765.
- Bettzieche, F., action of Grignard reagents on amino-acids. IX. Action of mineral acids on β -amino- α -diphenyl-ethanol, A., 45.
action of Grignard reagents on amino-acids. XII. Determination of free carboxyl groups in peptides, A., 137.
- Bettzieche, F. [with Menger, R., and Wolf, Kurt], action of Grignard reagents on amino-acids. X. Experiments with acylamino-acids and peptides, A., 45.
- Bettzieche, F., and Menger, R., action of Grignard reagents on amino-acids. XI. Synthesis of peptide alcohols and their fission by acid and alkali, A., 241.
- Beumée-Nieuwland, N. See De Vries, O.
- Beutner, R., electromotive action of drugs as a cause of their toxicity. I. Extension of Nernst's theory of excitation and demonstration of the sensitiveness of a certain phase boundary potential towards potent alkaloids, A., 991.
- Beutner, R., and Menitoff, A., influence of salt content of colloids on their E.M.F. in relation to bio-electric currents, A., 600.
- Beveridge, J., material for lining alkali recovery furnaces, (P.), B., 300.
- Beveridge, J. B., filtering wood pulp, (P.), B., 138.
manufacture of bisulphites, (P.), B., 218.
manufacture of paper pulp, (P.), B., 675.
- Beyersdorfer, P., technical aerosols and their characteristics, B., 687.
- Beythien, A., noxious solvents and thinners used in paints and adhesives, B., 50.
- Beythien, A., Hartwich, C., and Klimmer, M., interpretation of bromatological analyses, B., 762.
- Beythien, K. See Steinkopf, W.
- Bezssonoff, N., is antiscorbutic effect due to two substances? A., 283.
- Bezssonoff, N. See also Truffaut, G.
- Bhaduri, D., and Rây, P., oxidation by alkaline ferrieyanide and composition of higher oxides of cobalt, A., 34.
- Bhagvat, M. B., and Simonsen, J. L., constitution of the acid formed by the action of sulphuric acid on camphorquinone, A., 250.
- Bhatnagar, S. S., Dunncliff, H. B., and Ali, M., action of light on concentrated aqueous solutions of ammonium thiocyanate, A., 947.
- Bhatnagar, S. S., Yajnik, N. A., and Zadoo, V. D., "photo-sols." I., A., 1024.
- Bhattacharya, A. See Mitter, P. C.
- Bhattacharya, R., and Ayyar, P. R., oils and fats from the seeds of Indian forest plants. VIII. Oil from the seeds of *Thevetia nerifolia* (Juss.), B., 706.
- Bhattacharya, R., and Simonsen, J. L., synthesis of morindone, A., 882.
- Bhattacharyya, R. C. See Rassow, B.
- Bhide, B. W., and Watson, H. E., esterification in mixed solvents, A., 1036.
- Bia, G., and De Bielize, J. E. D. de G., manufacture of artificial marble, (P.), B., 780.
- Bianchi, A. E., and Guardabassi, G., cracking, catalysing, and hydrogenation of carbonaceous materials, (P.), B., 930.
- Bicheroux, M., manufacture of raw plate glass, (P.), B., 366.
- Bichowski, F. R., and Copeland, L. C., active form of oxygen, A., 1156.
- Bickel, A., and Eweyk, C. van, active iron compounds, A., 923.
- Bickel, A., and Remesov, I., effect of composition of diet on the urinary C:N ratio with special reference to amino-acids, A., 899.
- Bicking, G. W. See Shaw, M. B.
- Bicknese, F., preservation of ether for anaesthesia, B., 668.
- Bicskei, J., determination of sulphurous acid and sulphites, A., 330.
determination of cyanides and thiocyanates, A., 331.
determination of formaldehyde, A., 551.
- Biddle, A., caoutchouc-latex compositions, (P.), B., 852.
- Biddle, A., and United Products Corporation of America, caoutchouc composition, (P.), B., 85*.
treating caoutchouc latex, (P.), B., 120.
- Bieber, R. See Nielsen, J. R.
- Biedermann, H. See Karrer, P.
- Bieler, F. S., critical survey of recent advances in the study of diamagnetism, A., 301.
- Bieler, E. S., calculation of magnetic susceptibility of sodium chloride from data on intensities of X-ray reflexions, A., 402.
- Bieler-Buttiaz, C., influence of cold work and annealing on magnetic properties of thin wires of invar, iron, and steel, B., 368.
- Bien, A. See Rasselsteiner Eisenwerks-Ges. A.-G.
- Bienias, A., and Sauerwald, F., internal friction of molten metals and alloys. III. Internal friction of copper, antimony, lead, and copper-antimony, copper-tin, and lead-bismuth alloys, A., 508.
- Bierich, R., Rosenbohm, A., and Kalle, K., conditions of formation of malignant tumours. IV. Lactic acid, cytochrome, and glutathione contents of normal and cancer tissues, A., 693.
- Biesalski, E., nature of base exchange, A., 324.
- Biesalski, E., and Lepp, H. von, action of molecular and combined oxygen on potassium cyanide at 300–500°, A., 864.
- Biggart, J. L., cleansing articles contaminated by oil, grease, paint, etc., (P.), B., 147.
- Biggs, H. See Hyslop, J. F.
- Bigiavi, D., reactions of nitroxyl with aromatic nitro-derivatives and with azoxy-compounds, A., 142.
action of aldehydes on azo-compounds, A., 459.
relationships between aromatic nitro-derivatives and azoxy-compounds, A., 553.
action of peracetic acid on acetyl derivatives of aromatic amines, A., 658.
formation of benzeneazoxy-*p*-phenols, A., 1180.
- Bigiavi, D., and Franceschi, F., formation of nitrosoarylhydroxylamines, A., 758.
- Bigiavi, D., and Grechi, G., derivatives of benzeneazopyroglolol, A., 761.
- Bigiavi, D., and Guarducci, P., derivatives of 4:4'- and 2:2'-dihydroxyazobenzene, A., 454.
- Bigiavi, D., and Sabatelli, F., the two isomeric benzeneazoxy-*p*-toluenes, A., 1180.
- Bigiavi, D. See also Angeli, A.
- Bigot, A. P., anhydrous silicas containing clays; composition of ochres, B., 253.
- Bigwood, E. J., and Wuillot, A., free sugar of the blood-plasma, A., 1102.
- Bilimann, E., and Jensen, A. L., preparation of pure hydrogen for hydrogen electrodes, A., 328.
potential of the quinhydrone electrode in reference to the hydrogen electrode, A., 421.
- Bilimann, E., and Katagiri, H., influence of dextrose, alcohol, and carbon dioxide on the p_H values of phosphate and hydrogen carbonate solutions, A., 516.
- Bilimann, E., and Toyborg-Jensen, S., determination of soil reaction by means of the quinhydrone electrode, B., 886.
- Bijvoet, J. M., Claassen, A., and Karssen, A., scattering power of lithium and oxygen determined from the diffraction-intensities of powdered lithium oxide, A., 298.
- Bikerman, J. J., electrostatic theory of anomalous liquids, A., 16.
dielectric constant of "rod-like-particle" sols, A., 92.
cataphoresis in mixed solvents; theory of coagulation, A., 825.
- Bilger, F. See Skrabal, A.
- Bilicke, C. See Hendricks, S. B.
- Bilinkina, V. See Korsakova, M.
- Billing, J. See British Celanese, Ltd.
- Billiter, J., alkali chloride industry, B., 777.
electrolytic diaphragms composed of glass threads, (P.), B., 944.
- Billiter, J., and Siemens & Halske Akt.-Ges., filter diaphragms for electrolytic purposes, (P.), B., 196, 392*.
electrolytic diaphragm cells, (P.), B., 786.
- Billner, K. P., concrete and similar materials, (P.), B., 444.
- Billon, F., and Établissements Poulenc Frères, preparation of salts of alkaloids and acetylaminohydroxyphenylarsenic acid [acetamidohydroxyphenylarsinates of quinine and quinidine], (P.), B., 861*.
- Billon, P., reduction of oximes of unsymmetrical ketones and of β -ketonic esters, A., 879.
- Bills, C. E., antirachitic substances. VI. Distribution and possible origin of vitamin-D, A., 595.
- Bills, C. E., and McDonald, F. G., antirachitic substances. V. Action of ultra-violet light on ethers and esters of cholesterol, A., 487.
catalytic formation of mixed cholesteryl ethers, A., 556.
- Bills, E. J. See Duff, J. C.
- Billy, M. See Zuber, P. A.
- Bilowitzki, G. See Schmid, L.

- Biltz, H., and Bülow, H., 7:9-dimethyl-[$\Delta^{3:4}$]-isouric acid, A., 1090.
- Biltz, H., and Heidrich, (Frl.) D., carbamyl derivatives of hydantoin and their inversion, A., 1093.
- Biltz, H., and Krzikalla, H. [with Slotta, K.], 3:9-dimethyl- $\Delta^{5:7}$ -isouric acid, its chlorination products and degradation, A., 1091.
- Biltz, H., and Paetzold, H. [with Nachtwey, P.], isodialuric acid, A., 259.
- Biltz, K. See Kraus, P.
- Biltz, M., structure of metallic hydroxide gels, A., 624.
- Biltz, M. See also Hahn, O.
- Biltz, W., molecular and atomic volumes. XIII. Examples from organic chemistry of the volume law for solids, A., 498. nature of the luteo-complex, A., 920. stabilisation of chemical compounds by means of exothermic additive reactions, A., 1143.
- Biltz, W. [with Herzer, H.], molecular and atomic volumes. XII. Volume of ammonia in some ammoniates of cuprous, silver, and aurous halides, A., 188.
- Biltz, W., and Birk, E., two forms of cobaltous β -naphthalene-sulphonate, A., 234.
- Biltz, W., and Bräutigam, M., systematic doctrine of affinity. XXXVIII. Thiohydrides of carbon disulphide, A., 627.
- Biltz, W., and Fischer, Werner, systematic doctrine of affinity. XLIII. System cuprous chloride-cupric chloride, A., 1141.
- Biltz, W., and Jeep, K., systematic doctrine of affinity. XXXVII. Halogen-halide systems. II, A., 627.
- Biltz, W., Klatte, K. A., and Rahlfs, E., systematic doctrine of affinity. XLIV. Heats of formation [and volumes] of amines, and pyridine compounds, A., 1143.
- Biltz, W., and Müller, Helmut, systematic doctrine of affinity. XLI. Uranium oxides, A., 831. evolution of gases from hot quartz vessels, A., 849.
- Biltz, W., and Rahlfs, E., systematic doctrine of affinity. XLV. Increase in reactivity through lattice distension, and amines of the fluorides, A., 1157.
- Binder, F. See Funk, H.
- Binder, K., developer for photographic plates, films, papers, etc., (P.), B., 238*.
- daylight developers, B., 509.
- Bing, M., sterilising and preserving milk and similar liquids, (P.), B., 345.
- Binks, H. D. See Sausen, B. R.
- Binks Spray Equipment Co. See Sausen, B. R.
- Binks, W., crystalline structure of zircon, A., 190.
- Binns, C. F., and Craig, E., chromium red glaze, B., 749.
- Binns, C. F., and Wardner, H. E., coloured [ceramic] bodies, B., 749.
- Binz, A., and Räth, C., arsenic compounds of the quinolino series, A., 580. production of 3-bromo-2-hydroxypyridine-5-arsinic acid, (P.), B., 734. production of organic arseno-compounds, (P.), B., 829. arsenic compounds of the pyridine series. II, A., 890.
- Binz, A., Räth, C., and Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, production of an idopyridine, (P.), B., 669.
- Birkenbach, L. See Hönigschmid, O.
- Birkner, V. See Paine, H. S.
- Bircumshaw, L. L., surface tension of liquid metals. II. Surface tension of bismuth, cadmium, zinc, and antimony, A., 719.
- Bird, E. B., and Trieschmann, J. W., method and apparatus for the manufacture of carbon black or lamp-black, (P.), B., 290.
- Birdseye, C., preparing fish foods, (P.), B., 457.
- Birdseye, C., and General Seafoods Corporation, method of preparing foods, (P.), B., 858*.
- Birge, R. T., band spectra of carbon monoxide, A., 184. heat of dissociation of O_2 and O_3 , A., 1008. quantum analysis of the rotational energy of certain molecules, A., 1122.
- Birge, R. T. See also Pomeroy, W. C., and Shea, J. D.
- Birk, E., molecular and atomic volumes. XI. Volumes of chloro- and aquo-cobaltamines, A., 92. molecular and atomic volumes. XVI. Volumes of nitrate- and nitrito-cobaltamines, A., 920. cobaltic fluoride hydrate, A., 1157.
- Birk, E. See also Biltz, W.
- Birkhoff, G. D., theory of matter and electricity, A., 495. hydrogen atom and the Balmer formula, A., 495.
- Birstein, G., and Lobanov, N., kinetics of formate formation, A., 319.
- Bischoff, F., and Blatherwick, N. R., preparation of colloidal lead, A., 724. colloidal lead phosphate for use in cancer therapy, A., 1110.
- Bischoff, F. See also Blatherwick, N. R., and Maxwell, L. C.
- Bishop, J. A., desulphurisation and hydrogenation of unsaturated and waste [hydrocarbon] oil, (P.), B., 134.
- Bishop, L. R., determination of cyanogenetic glucosides, A., 1228.
- Bishop, O. M., and Du Pont de Nemours & Co., E. I., production of chloro-derivatives of N-dihydro-1:2:1':2'-anthraquinone-azine, (P.), B., 809.
- Bishop, R. O., rubber content of ammoniated latex, B., 341. *Hevea* latex. VI. Proteins in serum from frozen latex, B., 532. *Hevea* latex. VII. Rubber derived from preserved latex, B., 948.
- Bishop, R. O., and Teik, G. L., kapok, B., 744.
- Bishop, R. O. See also Eaton, B. J.
- Bischoff, F. C. See Roark, R. C.
- Bissinger, E., does diabetic blood-serum influence the permeability of cells to dextrose? A., 789.
- Bisson, C. S., and Sewell, J. G., determination of cuprous oxide produced in sugar analysis, B., 312.
- Biswas, S. C., ionisation potential of hydrogen fluoride, A., 497.
- Biswas, S. C., and Bose, S., decomposition potentials in non-aqueous solvents, A., 421.
- Bito, S., body-fluid of the silkworm, A., 894.
- Bittinger, C., production and utilisation of dichroic inks, (P.), B., 532.
- Bivins, F. H. See Rhodes, F. H.
- Bjerregaard, A. P., and Doherty Research Co., extraction of [aromatic] hydrocarbons from [coal] gas, (P.), B., 516.
- Bjerrum, N., use of Donnan's membrane equilibrium theory or the determination of the charge of colloid particles, A., 310. ionic association. I. Influence of ionic association on the activity of ions at moderate degrees of association, A., 314. some anomalies in the theory of solution of strong electrolytes and their explanation, A., 1023.
- Bjerrum, N., and Larsson, E., ionic partition coefficients, I, A., 828.
- Bjerrum, N., and Manegold, E., collodion membranes. I. Preparation and characterisation of uniform membranes, A., 727. collodion membranes. II. Relation between membrane structure and permeability to water, A., 1022.
- Black, C. A. See Almquist, J. A.
- Black, J. C., Rial, W. D., Howes, R. T., and Pan American Petroleum Co., treatment of petroleum products, (P.), B., 596*.
- Blackford, J., fluxes for soldering, (P.), B., 753.
- Blackman, P., method for measuring vapour densities, A., 818.
- Blackwell, H. F., methods of making plant foods, (P.), B., 88.
- Bladergroen, W. See Fichter, F.
- Blaise, G. See Houben, J.
- Blagoveshchenski, A. V., and Sossiedov, N. I., specific action of plant enzymes. III. Conditions of action of leaf salicinas, A., 1111.
- Blaikie, K. G. See Canadian Electro Products Co., Ltd.
- Blair, A. W., and Prince, A. L., relation of soil reaction to active aluminium, B., 855.
- Blair, A. W. See also Lipman, J. G.
- Blair, D. A., and Blair, Campbell & McLean, Ltd.; evaporating apparatus, (P.), B., 95.
- Blair, E. W. See Ledbury, W.
- Blair, G. W. S., Watts, G., and Denham, H. G., effect of concentration on viscosity of flour suspensions, B., 397.
- Blair, G. W. S. See also Denham, H. J.
- Blair, J. S. See Pinck, L. A.
- Blair, R. W., and Byron, F. E., dammar penak, B., 916.
- Blair, Campbell & McLean, Ltd. See Blair, D. A.
- Blaisdell, H. W., and Blaisdell Filtration Co., filtration process, (P.), B., 350.
- Blaisdell Filtration Co. See Blaisdell, H. W.
- Blaise, E. E., and Herzog, constitution of the chlorides of α -acetoxy-acids, A., 645.
- Blake, F. C., and Focke, A. E., nickel-chromium solid solutions, A., 1017.
- Blake, J. T. See Simplex Wire & Cable Co.
- Blake, L. J. B., mixing machine for concrete, tar macadam, etc., (P.), B., 254.

- Blakey, W., McCombie, H., and Scarborough, H. A., velocity of saponification of mono- and di-substituted chloro- and methoxy-derivatives of ethyl benzoate, A., 27.
- Blanc, E. See Bouvier, M. E.
- Blanc, G., preparation of benzoic acid and benzoates, (P.), B., 459.
- Blanchard, E., and Chaussin, J., antagonism between chlorides used in large amounts and sulphates in the development of wheat and oats on a large scale, B., 760.
- Blanchard, L., alkylation with *p*-toluenesulphonic esters, A., 853.
- Blanchard, L. See also Penau, H.
- Blanchet, L. See Société Anonyme d'Explosifs et de Produits Chimiques.
- Blanchetière, A., separation and determination of 2:5-diketopiperazines in presence of amino-acids and peptides, A., 269.
- composition of peptones, A., 474.
- Blanc, E., Giesecke, F., and Scheffer, F., pot experiments with various fertilisers, B., 307.
- Blanc, E., and Scheffer, F., physiological significance of nutrient extracts in the determination of the manurial requirement of soils by chemical means, B., 307.
- Blanco, G. See Thannhauser, S. J.
- Blandford, T., Gee, A., and Potts, H. E., process of cementation in the ground, (P.), B., 110.
- Blank, L. H. See McLaughlin, G. D.
- Blank, N., motor fuel, (P.), B., 467.
- Blanksma, J. J., 5-hydroxymethylfurfuraldehyde, A., 250.
- Blaser, B. See Traube, W.
- Blatherwick, N. R., Bischoff, F., Maxwell, L. C., Berger, J., and Sahyun, M., insulin, A., 485.
- Blatherwick, N. R., and Sahyun, M., effect of cobalt on insulin hypoglycemia in rabbits, A., 1115.
- Blatherwick, N. R. See also Bischoff, F., and Maxwell, L. C.
- Blatz, C. P. See Barger, W. R.
- Blau, L. W. See Romberg, A.
- Blaydon Manure & Alkali Co. See Hill, B. P.
- Blazey, C., brittleness in arsenical copper, B., 280.
- Bleachers' Association, Ltd. See Kershaw, W., and Parker, C. S.
- Blechs Schmidt, A. See Gronover, A.
- Blechs Schmidt, E., cathodic sputtering. II. Variations in experimental conditions, A., 118.
- Blechts, F. J. See Krauz, C. K.
- Bleek, W. A. F., primary battery, (P.), B., 820.
- Bleecker, W. F., production of impervious [graphitic] material, (P.), B., 352.
- glass composition, (P.), B., 523.
- Blessing, E. F., production of wrought iron, (P.), B., 79.
- puddling furnaces, (P.), B., 81*.
- Bleyer, B., preparation of citric acid, (P.), B., 344.
- Bleyer, B., and Braun, W. (München), oxidative decomposition of dextrose, A., 341.
- oxidative decomposition of dextrose. II. Oxidation of pyruvic acid, A., 541.
- Bleyer, L., effects of alkylresorcinolcarboxylic acids and their dependence on the constitution of the alkyl side-chains, A., 380.
- Bligh, (Mrs.) M. F., and Hodsman, H. J., behaviour of carbonised fuels in the open fire-grate, B., 353.
- Blikslager, H. J., electrochemistry of fused salts, A., 735.
- Blinov, W. See Predvoditelev, A.
- Blish, M. J., standardising the experimental baking test, B., 396.
- Blish, M. J., Abbott, R. C., and Platenius, H., determination of glutenin in wheat flour, B., 590.
- Blish, M. J., and Sandstedt, R. M., factors affecting interpretation of experimental baking tests, B., 761.
- Bloch, A. See Karrer, P.
- Bloch, E. See Bloch, L.
- Bloch, L., and Bloch, E., arc and spark spectra of iron in the extreme ultra-violet, A., 177.
- spark spectra of bromine, A., 178.
- fluorescence of chlorine and of bromine, A., 396.
- arc and spark spectra of bromine, A., 802.
- spark spectra of high order of sulphur and selenium, A., 1117.
- Bloch, R. See Ephraim, F.
- Block, D. J., and Stein, W. D., manufacture of a flour improver, (P.), B., 732*.
- Blok, (Miss) J. See Böeseken, J.
- Blom, A. V., drying of fatty oils, B., 371.
- settling of oil paints, B., 531.
- Bloom, W., and Kern, R., spleens from Gaucher's disease and lipidhistiocytosis, A., 587.
- Bloomfield, G. See Woodruff, J. C.
- Bloor, W. R., distribution of unsaturated fatty acids in tissues. II. Voluntary muscle of the ox, A., 477.
- Bloor, W. R., Gillette, E. M., and James, M. S., fat metabolism in diabetes. I. Blood-lipins in experimental diabetes, A., 1216.
- Blue Diamond Materials Co. See Tuttle, A. E.
- Blüh, O., potentials associated with adsorption and diffusion, A., 316.
- Blüh, O., and Stark, N., influence of electric fields on adsorption, A., 929.
- Blüh, O. See also Stark, N.
- Blümmel, F. See Freudenberg, K.
- Blümner, E., continuous distillation of tar and oil, (P.), B., 468.
- continuous distillation of mineral oils, etc., (P.), B., 695.
- Blümner, R., continuous distillation of tars and oils, (P.), B., 596.
- Blum, H., and Société Alsacienne de Produits Chimiques, manufacture of borneol esters, (P.), B., 797*.
- Blum, W., and Rawdon, H. S., principles of electrolytic studies on corrosion, B., 447.
- Blum, W. See also Thomas, C. T.
- Blumann, A., and Schmidt, Harry, verbenol, A., 567.
- Blumann Rare Earths Chemical Co. See Blumenfeld, J.
- Blumberger, J. S. P., halochromy of triphenylmethane derivatives, A., 55.
- constitution of the azo-dyes, A., 142.
- solvatochromism of the ketones, A., 1055.
- Blumenberg, H., jun., process of mining insoluble boron compounds, (P.), B., 749.
- Blumenberg, H., jun., and Stockholders Syndicate, treating [recovering] vanadium compounds, (P.), B., 43.
- manufacture of phosphoric acid, (P.), B., 106.
- production of metal [lead] phosphate, (P.), B., 218.
- treatment of phosphate rock, (P.), B., 792.
- manufacture of sodium sulphites and boric acid, (P.), B., 814.
- Blumenfeld, J., filtration of solutions and the like, (P.), B., 556*.
- Blumenfeld, J., and Blumann Rare Earths Chemical Co., preparation of pigments and paints, (P.), B., 756*.
- Blumenfeld, J., and Fabriques de Produits Chimiques de Thann et de Mulhouse, manufacture of titanium oxide, (P.), B., 748.
- Blumenstock, A. See Kailan, A.
- Blumenstock-Halward, E., action of aqua regia on fluorene, A., 866.
- Blumenthal, H. See Wittig, G.
- Blumenthal, R., micro-determination of blood-sugar; blood-sugars of insects, A., 1214.
- Blumgarten, A. S., and Rohdenburg, G. L., mineral salt content of the blood in disease, A., 586.
- Blunt, D. L. See Woodman, H. E.
- Blunt, K. See Willard, A. C.
- Blunt, T. P., analysis of commercial lime, B., 44.
- Bluthardt, O. W. See Marvel, C. S.
- Blyth & Co., Ltd., W. See Bentley, W. H.
- Boas, F., effect of cosin on the growth of roots, A., 388.
- Boas, F., and Diener, H. O., biocatalysts in meadow and pasture plants, A., 284.
- Boas, M. A., effect of desiccation on the nutritive properties of egg-white, A., 797.
- Boatman, B. See Harper, H. J.
- Boatman, J. L. See Harper, H. J.
- Boberg, T. See Söderlund, O., and Testrup, N.
- Bobinska, J. See Swientoslawski, W.
- Bobranski, B., and Sucharda, E., synthesis of 1:5-naphthyridine, A., 678.
- Bobranski, B. See also Sucharda, E.
- Bobrov, P. A., pitch, turpentine oil, and aqueous distillates during the industrial treatment, B., 392.
- medicinal creosote and methods of obtaining it, B., 392.
- characteristics of the process of rosin distillation, B., 392.
- pine resin acids and their behaviour at high temperatures, B., 392.

- Bobrov, P. A., composition of resin, B., 392.
- Bobrownicka-Odrzywolska, A., influence of potassium and sodium salts on the metabolism of reserve materials in young barley plants grown in darkness, A., 384.
- Bobbelsky, M., and Malkova-Janovskaja, viscosity of alum solutions, A., 932.
- Bocca, B. See Semeria, G. B.
- Bocchi, C. See Rossi, G.
- Bock, A. V., Dill, D. B., Hurxthal, L. M., Lawrence, J. S., Coolidge, T. C., Dailey, M. E., and Henderson, L. J., blood as a physico-chemical system. V. Composition and respiratory exchanges of normal human blood during work, A., 786.
- Bock, A. V. See also Dill, D. B., and Henderson, L. J.
- Bock, L., colloid-chemical studies on chrome yellow, B., 50.
- Bodansky, M., Morse, S. W., Kiech, V. C., and Bramkamp, R. B., distribution of protein in blood in experimental anaemia, A., 1105.
- Bodansky, M. See also De Aberle, S. B.
- Bodansky, O. See Loeb, L.
- Bode, G., purification of waste water from the fermentation industries, B., 152.
- Bodenstein, M., oxidation of phosphorus vapour at low pressures, A., 326.
analysis of the time-effect in compound chemical reactions, A., 492.
theory of the catalytic combustion of ammonia, B., 217.
mechanism of the production of zinc, B., 447.
- Bodenstein, M. [with Bütfisch, Kahle, Süssenguth, Heisenberg, E., and Harteck], photochemical formation of carbonyl chloride. I, A., 1154.
- Bodenstein, M., Hahn, O., Hönigschmid, O., and Meyer, R. J., seventh report of the German committee on the determination of atomic weights, A., 182.
- Bodenstein, M., and Jost, W., influence of water on the combination of the halogens with hydrogen, A., 737.
- Bodewig, recovery of volatile solvents in chemical industries, B., 767.
- Bodforss, S., Döbner's quinoline synthesis and its by-products, A., 775.
electrochemistry of beryllium. II, A., 1152.
- Bodin, E., emission of short-wave radiation by poor conductors, A., 289.
- Bodnár, J., and Gervay, W., determination of the content of toxic substance in insecticides. III. Determination of polysulphide sulphur, B., 856.
- Bodnár, J., and Terényi, A., determination of the toxic substance in insecticides. II. Volumetric determination of copper in insecticides containing iron, arsenic, and mercury, B., 30.
- Bodnár, J., Villányi, I., and Terényi, A., biochemistry of rust diseases of cereals. I. Adsorption of copper from copper compounds by rust spores [*Tilletia tritici* (Bjerk.)] of wheat, A., 600.
- Bodó, R. von, and Marks, H. P., action of insulin on the aseptically perfused heart, A., 994.
- Bodó, R. von, and Scheffer, L., fate of fat emulsions administered intravenously, A., 990.
- Bodrero, B., manufacture of superphosphate, (P.), B., 151.
preparation of fertilisers containing sulphur and phosphate, (P.), B., 171.
- Boedecker, F., sedative and hypnotic ureides [carbamides], (P.), B., 860.
- Boedecker, F., and Riedel A.-G., J. D., manufacture of barbituric acid, (P.), B., 349*.
- Boedecker, H. See Anschütz, L.
- Boës, R. See Kröning, O.
- Böeseken, J., action of perbenzoic and peracetic acids on unsaturated substances, A., 39.
theory of dislocation from the point of view of thermodynamics and kinetics, A., 1150.
- Böeseken, J. [with Blok, (Miss) J., and Stok, J.], condensation products of polyhydroxy-compounds with chloral, A., 646.
- Böeseken, J. [with Smit, W. C., Hoogland, J. J., and Broek, A. G. van den], α -clostearic acid from tung oil, A., 1169.
- Böeseken, J., and Belinfante, A. H., configuration of oleic and elaidic acids, A., 132.
- Böeseken, J., Cohen, W. D., and Langedijk, S. L., interaction of ketones and alcohols under the influence of light. II. Explanation of some photochemical discrepancies by the theory of the interior filter, A., 769.
- Böeseken, J., and Gelber, R. T., determination of iodine values, B., 427.
- Böeseken, J., and Langedijk, S. L., light oxidation of alcohols as contribution to the knowledge of photochemical phenomena, A., 739.
- Böeseken, J., Muller, H. D., and Japhongjouw, R. T., optically active borohydroxyisobutyric acid, A., 132.
- Boegehold, A. L. See Williams, H. M.
- Böhler, Gebrüder & Co., welding cast-iron, (P.), B., 194.
- Böhler, Gebrüder & Co., and Fuchs, J., treatment of machine parts made of austenitic manganese steel, (P.), B., 912.
- Böhm, E. See Sabalitschka, T.
- Böhm, F., protein coagulation in drops. IX. Synergism of proteins in mixtures, A., 935.
- Böhm, F. See also Rhenania Verein Chemische Fabriken A.-G.
- Böhm, H. See Raudnitz.
- Böhm, J., röntgenographical investigation of inorganic colloids, A., 823.
Röntgen apparatus for crystallographical investigations in the chemical laboratory, A., 954.
- Böhm, J., and Hassel, O., crystal structure of calcium silicide, A., 297.
- Böhm, J. See also Berkmann, S., Bogdandy, S. von, and Hevesy, G. von.
- Böhm, W. See Schürmann, E.
- Boehmer, N., and Chadeloid Chemical Co., chlorinated-rubber varnish, (P.), B., 661.
- Boehringer, A. (Boehringer Sohn, C. H.), production of disinfecting agents, (P.), B., 894.
- Boehringer & Soehne, C. F., preparation of manure, (P.), B., 663.
- Boehringer & Soehne, C. F., Rothmann, A., and Hilcken, V., manufacture of derivatives of cinchona alkaloids, (P.), B., 828.
- Boehringer & Soehne, C. F. See also Rothmann, A.
- Boehringer Sohn, C. H., production of a therapeutic substance from *Calotropis procera*, (P.), B., 398.
- Boehringer Sohn, C. H., and Haussler, A., manufacture of esters of oxy[keto]-acids [pyruvic acid], (P.), B., 237.
manufacture of aliphatic keto- and aldehydo-carboxylic acids, (P.), B., 733.
- Boehringer Sohn, C. H., and Schöpf, preparation of thebaine derivatives, (P.), B., 460.
- Boehringer Sohn, C. H. See also Wieland, H.
- Boelsing, F. See Chuit, P.
- Bökmann, J. See Schenck, R.
- Bönnemann, F., Upper Silesian blast-furnace coke, B., 434.
- Börnegg, C. B. von. See Stutchbury, M. S.
- Börnstein, E., Schliebiensky, H., and Szczesny-Heyl, S. V., Fritzsche's reagent [β -dinitroanthraquinone], A., 155.
- Böttcher, K. See I. G. Farbenind. A.-G.
- Böttger, K., and Böttger, W., iodometric titrations. II. Determination of arsenate, A., 222.
iodometric titrations. III. Reaction between atmospheric oxygen and acid iodide solutions, A., 330.
iodometric titrations. IV. Determination of iron, A., 332.
- Böttger, W., and Druschke, K., examples of induced precipitation, A., 536.
- Böttger, W. See also Böttger, K.
- Bogaert, L. van, equation of state for easily liquefied hydrocarbons. I. Weight of a litre of *n*-butane, A., 719.
- Bogatsky, V. See Petrenko-Kritschenko, P.
- Bogdandy, S. von, Böhm, J., and Polányi, M., method of producing molecular mixtures, A., 120.
- Bogdandy, S. von, and Polányi, M., rapid analysis of brass, B., 413.
- Bogdandy, S. von. See also Polányi, M.
- Boger, R. C., softening, spinning, and twisting artificial silk, (P.), B., 329.
- Bogert, M. T., and Allen, R. W., thiazoles. XII. Synthesis of isomerides of dehydrothio-*p*-toluidine and of some related compounds; constitution and tinctorial properties in the thioflavine and chloroamine-yellow groups, A., 679.
- Bogert, M. T., and McCollm, E. M., quinazolines. XXXVIII. Synthesis of some new analogues of cinchophen and intermediate products, A., 1205.
- Bogert, M. T., and Stull, A., odour and chemical constitution in the benzoselenazole group, A., 982.
selenium organic compounds. VII. Synthesis of 2-phenyl-, 2-furyl-, and 2-thienyl-benzoselenazoles, of 2-phenylbenzoselenazole-4'-arsinic acid, and of other benzoselenazoles, A., 983.

- Bogert, *M. T.*, and Taylor, *W. H.*, new derivatives of phenacetin, A., 763.
- Bogert, *M. T.*, and Updike, *I. A.*, thiazoles. XIII. Synthesis of 6-dimethylamino-2-arylbenzthiazoles from 2-amino-5-dimethylanilinetiosulphuric acid and aromatic aldehydes, A., 680.
- Bogert, *M. T.* See also Curtin, *L. P.*
- Boggio-Lera, *E.* See Piutti, *A.*
- Boggs, *C. R.*, and Follansbee, *E. M.*, selenium in rubber compounds, B., 149.
- Boggs, *C. R.* See also Simplex Wire & Cable Co.
- Bogin, *C.* See Brown, *B. K.*
- Bogitch, *B.*, granulation of slags, B., 167.
reduction of mineral oxides, B., 680.
- Bogoiavlensky, *L. N.*, and Lomakin, *A. A.*, highly penetrating radiation from the earth, A., 439.
- Bogomolova, *M. I.* See Isgarischev, *N. A.*
- Bogoslovski, *E.*, dependence of surface tension on the electric charge, A., 1132.
- Bogue, *R. H.* See Hansen, *W. C.*
- Boguski, *J. J.*, velocity of chemical reactions, A., 211.
- Bohanes, *A.*, detection and determination of foreign substances in dyes, B., 211.
- Bohle, *F.*, and Schröder, *R.*, dry packing insulation against heat exchange with protective mantle, (P.), B., 66*.
- Bohm, *W.*, determination of small quantities of zinc in pure aluminium, B., 605.
- Bohn, *H.*, employment of liquid paraffin in colloidal and physiological chemistry, A., 70.
adsorption of hydrogen and hydroxyl ions by animal charcoal. I. Isoelectric point of animal charcoal, A., 106.
- Bohn, *R. T.*, and Martz, *R. J.*, rapid colorimetric determination of hydrogen-ion concentration of crackers, B., 396.
- Bohnkamp, *J.* See Tröger, *J.*
- Bohner, *H.*, relation between the Brinell hardness and tensile strength of pure aluminium and aluminium alloys that undergo age-hardening, B., 489.
- Bohon, *E.*, Mailliard, *E.*, and Mailliard, *P.*, depilating and preserving hides and skins, (P.), B., 791.
soaking hides, (P.), B., 791.
- Bohrisch, *P.*, preparation and examination of pine-needle extract, B., 267.
- Boidi, *S.* See Garino, *M.*
- Boinot, *G.* See Lematte, *J.*
- Boiry, *F.*, vulcanisation of rubber by sulphur, B., 610.
- Boivin, *A.*, determination of uric acid as ammonium urate, A., 488.
micro-determination of uric acid; determination of a few centigrams of uric acid per litre in presence of purine bases, A., 488.
- Bojanowski, *K.* See Turski, *J. S.*
- Bokay, *Z. von*, distribution of alkalis in the serum of infants, A., 896.
- Bokor, *R.*, microbiology of forest soil, B., 306.
- Bollen, *W. B.*, wash-bottle, A., 128.
- Bollen, *W. B.*, and Neidig, *R. E.*, uniformity and utility of data in soil solution analyses, B., 729.
- Bollen, *W. B.* See also Neidig, *R. E.*
- Boller, *W.*, determination of small quantities of water in mineral oils, B., 272.
- Bollman, *J. L.* See Ort, *J. M.*, and Sheard, *C.*
- Bollmann, *H.*, producing soluble cocoa powders, (P.), B., 171.
bleaching fatty oils, mineral oils, etc., (P.), B., 227.
- Bollmann, *H.*, and Foster, *M. F.*, production of an article of food, (P.), B., 123.
- Bolsover, *G. R.* See Swinden, *T.*
- Bolt, *F.* See Wrede, *F.*
- Bolt, *F. L.*, systems of oil burning and their possible application to the potteries, B., 300.
- Boltenstern, *W. von*. See Metallbank & Metallurgische Ges. A.-G.
- Bolton, *J.* See Ames, *R.*, and Mills, *M. W.*
- Bolton, *J. F.* See Mills, *M. W.*
- Bolz, *K.* See Lecher, *H.*
- Bolzinger, *A.*, electrolytic corrosion of [gas] mains, B., 960.
- Bombars, *A.* See Société Française des Films Hérault.
- Bomborg, *(Mlle.)*. See Weil, *S.*
- Bomborg, *P.* See Fröschl, *N.*
- Bombrini Parodi-Delfino, and Benelli, *T.*, [non-solvent, propulsive] explosive, (P.), B., 269.
- Bomcke, *K.* See Deutsche Erdöl-Akt.-Ges.
- Bond, *M.* See Lowenfeld, *M. F.*
- Bond, *P. A.* See Beach, *H. T.*
- Bond, *W. R.*, and Haag, *H. B.*, determination of chlorides in body-fluids, A., 996.
- Bone, *K. S. C.*, and Wilson Brothers Bobbin Co., Ltd., production of active carbon, (P.), B., 740.
- Bone, *W. A.*, supposed law of flame speeds, A., 26, 630.
production of activated nitrogen and of oxides of nitrogen therefrom, (P.), B., 749*.
- Bone, *W. A.*, and Forshaw, *A.*, catalytic combustion. V. Union of carbonic oxide and other gases with oxygen in contact with a fireclay surface at 500°, B., 289.
- Bone, *W. A.*, Fraser, *R. P.*, and Winter, *D. A.*, initial stages of gaseous explosions. I. Flame speeds during the initial "uniform movement." II. Supposed law of flame speeds, A., 424.
- Bone, *W. A.*, Fraser, *R. P.*, and Witt, *F.*, initial stages of gaseous explosions. III. Behaviour of an equimolecular methane-oxygen mixture when fired with sparks of varying intensities, A., 424.
- Bone, *W. A.*, and Newitt, *D. M.*, gaseous combustion at high pressures. VII. Spectrographic investigation of the ultra-violet radiation from carbonic oxide-oxygen (or-air) explosions, A., 631.
- Bone, *W. A.*, Quarendon, *R.*, and Gas Light & Coke Co., manufacture of useful products by oxidising coal, (P.), B., 402.
- Bone, *W. A.*, Reeve, *L.*, and Saunders, *H. L.*, interactions of gases and ore in the blast-furnace. I. At temperatures up to 650°, B., 484.
- Boner, *J.* See Briner, *E.*
- Bonet-Maury, *P.*, vaporisation of polonium, A., 606, 807.
- Bonhoeffer, *K. F.*, and Kaminsky, *G.*, afterglow of active nitrogen, A., 831.
- Bonhôte, *G.* See De Montmollin, *G.*
- Bonifazi, *G.*, determination of caffeine in de-caffeinated coffee, B., 314.
- Bonino, *G. B.*, mineral waters. II. Calculation of the f. p. of highly concentrated mineral waters, A., 517.
- Bonino, *G. B.* See also Betti, *M.*
- Bonnard and Leblanc, determination of copper in rot-proof canvas, B., 744.
- Bonnard, *A. H.* See Bonnard, *L. H.*
- Bonnard, *G.*, treating rape waste, (P.), B., 552.
- Bonnard, *L. H.*, and Bonnard, *A. H.*, manufacture of vegetable carbon, (P.), B., 34, 246*.
- Bonnell, *D. G. R.* See Zsigmondy, *R.*
- Bonner, *W. D.*, and Branting, *B. F.*, composition of hydrochloric acid of constant b. p., A., 104.
- Bonner, *W. D.*, and Kaura, *B. D.*, sodium cyanide copper solutions, B., 281.
determination of copper [cuprous] oxide and metallic copper in mixtures containing both, B., 940.
- Bonnet, *J.*, grape seed oil industry, B., 944.
- Bonnet, *R.* See Terroine, *E.*
- Bonnette, *H. E.* See Born, *S.*
- Bonnicksen, *C. W.*, and Barratt, *S.*, indicating the presence of submarine objects, (P.), B., 719.
- Bonot, *A.*, and Cahn, *T.*, determination of arginine in pure proteins and tissues by a modification of Janssen's method, A., 269.
- Bonrath, *W.* See I. G. Farbenind. A.-G., and Lieske, *R.*
- Bonsack, *W.*, system copper-tin-antimony, A., 418.
- Bonsack, *W.* See also Guertler, *W.*
- Bonstedt, *E. M.*, Nenadkevitch, *K. A.*, and Starynekevitch-Borneman, *I. D.*, new minerals of the mosandrite group from the Chibine Mountains, A., 129.
- Bonte, *J.*, determination of naphthalene in gas, B., 834.
- Boer, *J. R.*, Britten, *W. R. J.*, and District Chemical Co., Ltd., fluxes used in the welding of aluminium and its alloys, magnesium and its alloys, and other metals and alloys, (P.), B., 194.
- Boege, *J. E.*, and Du Pont de Nemours & Co., E. I., producing light-resistant lithopone, (P.), B., 305.
- Boone, *C. E.* See Smith, *W. H.*
- Boord, *C. E.* See Goodyear Tire & Rubber Co.
- Booth, *C. F.*, Logue, *P.*, and Federal Phosphorus Co., removal of borax from alkali nitrates, (P.), B., 166.
- Booth, *H. S.*, and Jones, *N. C.*, still for the purification of mercury, B., 193.
- Boots Pure Drug Co., Ltd. See Anderson, *L.*

- Booze, M. C., and Norton Co., manufacture of an article of sillimanite-bonded granular material, (P.), B., 557.
- Bordas, F., and Desfemmes, A., distribution and transportation of chlorides in the atmosphere, A., 1049.
- Bordas, J., colloidal fungicides, B., 151.
- Borde, R. C. F. See Letort, Y. M.
- Bordeianu, C. See Jonesco-Matiu, A.
- Bordeianu, C. V., colorimetric determination of phosphoric acid, particularly in phosphatic fertilisers, B., 422.
- Bordin, N., detection of salicylic acid in presence of digallic acid, B., 27.
- Borelius, G., solubility and diffusion of hydrogen in metals, A., 727.
- Borelius, G., and Lindblom, S., passage of hydrogen through metals, A., 195.
- Boresch, K., oxidation and reduction of ammonium salts, nitrites, and nitrates by iron compounds insoluble in water, B., 10.
- Borgwardt, E. See Chemische Fabrik auf Aktien (vorm. F. Schering).
- Bork, A., dissociation constants of α - and β -alanine, and the transference velocities of the cations of the two isomerides, A., 1026.
- Borkowsky, F. See Schöpf, C.
- Borloz, A., critical study of methods of analysis of antipyrine and pyramidone, B., 764.
- Bormuth, C. See Schaefer, C.
- Born, S., Bonnette, H. E., Walker, J. C., and Empire Gasoline Co., dehydration of oils, (P.), B., 961.
- Bornate, G. See Garino, M.
- Borne Scrymser Co., apparatus for conditioning textile fibres, (P.), B., 839.
- Borrmann, C. H., distillation and absorption column, (P.), B., 591.
- Borsche, E., examination of Przibylla's tartaric acid method of the determination of potassium, B., 478.
- Borsche, W., constituents of kawa root. III. Catalytic hydrogenation of methysticin, A., 563.
- constitution of acids formed by decomposition of cholic acid, A., 1069.
- Borsche, W., and Feske, E., reciprocal exchange of aromatically combined hydroxyl and halogen. II. Mechanism of the Ullmann-Nadai reaction, A., 239.
- 3 : 3' : 5 : 5'-tetranitro-2 : 2'-dimethoxydiphenyl, A., 661.
- Borsche, W., and Frank, R., relationship between quinone-hydrazones and *p*-hydroxyazo-compounds. V. *p*-Arylsulphonazophenols, A., 50.
- constitution of the bile acids. X. Constitution of cilianic acid and certain other polycarboxylic acids of the cholic acid group, A., 459.
- constitution of the bile acids. XI. Ciloxanic acid, A., 772.
- Borsche, W., Meyer, C. H., and Peitzsch, W., constituents of kawa root. VI. Constitution of methysticin, A., 1192.
- Borsche, W., and Peter, W., new γ -pyrone [1 : 4-pyrone] synthesis, A., 570.
- Borsche, W., Rosenthal, W., and Meyer, C. H., constituents of kawa root. IV. Synthesis of a methyl kawaate and of two isomerides of methysticin, A., 664.
- Borsche, W., and Schwarz, A., constitution of the bile acids. XII. Cholanine, amides of cholic and deoxycholic acids, A., 1069.
- Borsche, W., and Walter, C., constituents of kawa root. V. Synthesis of yanganol, A., 1192.
- Borsook, H. See Goulding, A. M., McFarlane, J., and Morrell, C. A.
- Bortels, H., significance of iron, zinc, and copper for micro-organisms (with special reference to *Aspergillus niger*), A., 485.
- Bortels, H. See also Rippel, A.
- Borvisk Syndicate, Ltd., and Borzykowski, B., production from viscose of artificial formations suitable for the textile industry, (P.), B., 963.
- Borzykowski, B., treatment [delustring] of cellulose fibres or filaments, B., 904.
- Borzykowski, B. See also Borvisk Syndicate, Ltd.
- Bosart, L. W., and Snoddy, A. O., glycerol tables, B., 377.
- Bosch, C. See I. G. Farbenind. A.-G.
- Bosch, W. See Kolthoff, I. M.
- Bose, D. M., rôle of circular electrons in paramagnetic phenomena, A., 805.
- Bose, J. C., carbon assimilation by plants, A., 283.
- Bose, P. K., thiodiazines. IV., A., 63.
- Bose, P. K., and Chaudhury, D. R., thiosemicarbazone series, A., 769.
- Bose, P. K., and Ray-Chaudhury, D. C., thiodiazines. V., A., 981.
- Bose, S. See Biswas, S. C.
- Bose, U. See Sen, H. K.
- Bose-Rây, K. C. See Rây, (Sir) P. C.
- Bosler, W. T. See Humphreys & Glasgow, Ltd.
- Bosse, J. von, Richter, K., Lauch, K., Siegelberg, H., and Koch, W., metallising process [for textiles, etc.]; metallising furs and feathers, (P.), B., 820.
- Bossert Corporation, and Clement, W. J., hammers for grinding, crushing, and pulverising mills, (P.), B., 353.
- Bosshardt, E., open-hearth furnace, (P.), B., 449*.
- Bossière, C. G., and Zanicoli, H., separating the components of alloys, (P.), B., 820*.
- Bossuyt, (Mlle.) V. See Fosse, R.
- Bost, W. D., and Orange Crush Co., preparation of a food-colouring composition, (P.), B., 315.
- Bostroem, S. See Hock, L.
- Boswall, R. O., mathematical theory of the Michell ball viscosimeter: its design, construction, and operation, B., 463.
- Both, J. von. See Issekutz, B. von.
- Bothe, W., light quanta and interference, A., 494.
- divergence of magnetic electrons, A., 1002.
- Bothe, W., and Franz, H., atomic disintegration by α -particles from polonium, A., 710.
- Botolisen, E., sublimation of iron in a vacuum, A., 1045.
- Bots, R. H., manufacture of vanillin [and azobenzene], (P.), B., 924.
- Botschwar, A. A., relation between temperature of incipient increase in size of granules and m. p. of metals, A., 101.
- influence of rate of cooling on structure of alloys, B., 969.
- Botschwar, A. A. See also Tammann, G.
- Botson, R., treatment of hides and skins preliminary to tanning, (P.), B., 758, 917*.
- Botterill, T. D., cooling of sterilised milk or other liquid in bottles, (P.), B., 457.
- Bottini, E., evolution of tannin in fruits; kaki, A., 1226.
- storage of oranges, B., 456.
- Botts, E. D., and Krauskopf, F. C., electrochemical studies of titanium, A., 1033.
- Botwinkin, O. K., structure of the orthoclase molecule, A., 1165.
- Bougault, J., phenyl- α -hydroxyerotonamide; a ketone ether-oxide hydrate, A., 652.
- ether of a ketone hydrate; α -benzylidene- β -(β -phenylethyl)-succinic and benzyl-(β -phenylethyl)malic acids, A., 665, 1188.
- Bouis, M., addition of hydrogen bromide to allene hydrocarbons, A., 748.
- synthesis of hydrocarbons of the allene series, A., 1051.
- Boulard, H., stopping or arresting alcoholic fermentation, (P.), B., 793.
- Bouloires, J., transformations undergone by aluminium bronzes, B., 489.
- Boulton, W., Ltd. See Beardmore, F.
- Bourgeois, E., and Castele, A. V., displacement of alkyl groups from sulphurous esters, A., 444.
- Bourgin, D. G., line intensities in the hydrogen chloride fundamental band, A., 710.
- Bourgin, D. G., and Keable, E. C., intensities of the lines in the HCl absorption band at 3.5μ , A., 1122.
- Bourgoin, L., acetylation of fatty and other substances, (P.), B., 258*.
- Bourgom, A., determination of hard asphaltum in cylinder oil, B., 594.
- Bourguet, M., γ -phenylpropinene and the preparation of true acetylenes with sodamide, A., 337.
- Bourion, F., and Rouyer, E., formation of complexes between cadmium and alkali halides, A., 415.
- ebullioscopic determination of the molecular equilibria of resorcinol in aqueous solutions of potassium chloride, A., 515.
- ebullioscopic constant of aqueous solutions of potassium chloride and the molecular equilibria of resorcinol in this medium, A., 515.
- ebullioscopic study of the complexes produced by mercuric chloride and the alkali chlorides, A., 729.
- ebullioscopic determination of some complexes, A., 841.

- Boutaric, A., flocculation of mastic suspensions, A., 202.
analogy between conjugate pairs of liquids and systems consisting of a liquid phase with a vapour phase in equilibrium with it, A., 303.
stability of colloidal solutions towards electrolytes, A., 621.
- Boutaric, A., and Corbet, G., critical solution temperatures of mixtures of alcohol and some hydrocarbons, A., 719.
- Boutaric, A., and Dupin, (Mlle.) M., existence of two zones of instability in the flocculation of ferric hydroxide sols by electrolytes with multivalent anions, A., 309.
- Boutaric, A., and Perreau, (Mlle.) G., modification of the electric sign of colloids at will, A., 410.
influence of concentration of colloidal solutions on the quantity of electrolyte necessary for flocculation, A., 825.
refractometric measurements on colloidal solutions, A., 1138.
- Bouton, C. M., and Hayner, J. H., rate of combustion of coal dust particles. II. Effect of particle size on pressure increase attending inflammation of coal dust, B., 178.
- Bouton, C. M. See Schumacher, E. E.
- Bouvier, M. E., Blanc, E., and Société Chimique des Usines du Rhône, reduction of alkyl esters [methyl formate], (P.), B., 157*.
- Bouwers, A. See Holst, G.
- Bouwman, H. P. See Orstein, I. S.
- Bouyoucos, G. J., differences in the heat of reaction between artificial and soil gels of silica, alumina, and iron with hydroxides, A., 414.
contraction and expansion of soils when wetted with water, B., 307.
the hydrometer as a new and rapid method for determining the colloidal content of soils, B., 422.
determination of the colloidal material in soils, B., 454.
rapid determination of the moisture content of soils, B., 454.
the hydrometer as a new means for the mechanical analysis of soils, B., 498.
rapid determination of soil moisture by alcohol, B., 887.
- Bouzin, O., rotary tubular kilns for treating cement and the like, (P.), B., 333.
- Boving, H., and Western Electric Co., Inc., metallic composition, (P.), B., 753.
- Boving, J. O., refrigerating apparatus, (P.), B., 320.
absorption refrigerating apparatus, (P.), B., 639.
[automatic, reversible] absorption refrigerating apparatus, (P.), B., 801.
- Bovis, P., absorption spectra and pleochroism of iodine and herapathite, A., 607.
absorption spectrum of bromine in solution, A., 810.
- Bowater, N. J., manufacture of water-gas, (P.), B., 515.
- Bowe, L. E., neutral salt effect, A., 311.
- Boweu, A. R., and Nash, A. W., formation of anthraquinone by vapour-phase oxidation of toluene and petroleum distillates containing toluene, A., 1191.
- Bowen, E. J., and Bunn, C. W., photochemical oxidation of alcohols by the dichromate ion, A., 1040.
- Bowen, E. J., and Pells, E. G., chemiluminescence of phosphorus vapour, A., 633.
- Bowen, I. S., vacuum spectroscopy, A., 81.
series spectra of boron, carbon, nitrogen, oxygen, and fluorine, A., 285.
series spectra of ionised phosphorus, P II, A., 490.
origin of the nebular spectrum, A., 997.
- Bowen, I. S., and Millikan, R. A., stripped yttrium (Y III) and zirconium (Zr IV), A., 82.
- Bowen, I. S. See also Millikan, R. A.
- Bowen, N. L. See Morey, G. W.
- Bowen, R., and Super Coal Process Co., manufacture of agglomerated masses, (P.), B., 928.
- Bowen, W. S. See Dumas, H.
- Bowen-Dumars Power Corporation. See Dumas, H.
- Bowes, E. See Martin, G.
- Bowie, C. P., the Bowie-Gavin process and its application to the cracking of tars and heavy oils, and to the recovery of oil from sands or shales, B., 517.
- Bowker, R. C. See Wallace, E. L.
- Bowrey, S., extraction of amorphous wax from laboratory specimens of oil [petroleum], B., 693.
- Boyce Thompson Institute for Plant Research, Inc. See Denny, F. E.
- Boyd, D. R., and Hatt, H. H., mechanism of the reaction between a carboxylic ester and a Grignard reagent, A., 558.
- Boyd, J. D. See Hines, H. M.
- Boyd, T. A. See Lovell, W. G.
- Boydell, H. C., solubility of cassiterite, A., 956.
- Boyden, R. E. See Okey, R.
- Boyer, E. A. See Kerr, R. H.
- Boyer, M. W. See Haslam, R. T.
- Boyer, S., high-temperature thermometer; [properties of gallium], A., 100.
- Boyer, S. See also British Thomson-Houston Co., Ltd.
- Boyet, J. E., and Gueudré, A., manufacture of artificial horn, (P.), B., 197.
- Boynon, K. S., and E.-Z.-Way Co., insecticide and fungicide, (P.), B., 344.
- Bozorth, R. M., structure of a protective coating of iron oxides, A., 502.
- Bozorth, R. M., and Haworth, F. E., crystal structure of magnesium platinocyanide heptahydrate, A., 297.
- Bozza, G., and Devoto, G., calculation of chemical affinity on the basis of the entropy. I. and II., A., 419, 520.
- Bracaloni, L. See Baglioni, S.
- Brackett, F. W. See Brackett & Co., Ltd., F. W.
- Brackett & Co., Ltd., F. W., and Brackett, F. W., screening or filtering apparatus [for industrial water supply], (P.), B., 206.
- Brackman, G., simple determination of the oil content of oil seeds, B., 945.
- Bracq, E., [dismantling rabble-arms of] pyrites and other furnaces, (P.), B., 225.
furnaces for roasting sulphide and other ores, (P.), B., 583.
- Brada, R., after-darkening of the juices [in the carbonation process in beet factories], B., 920.
- Bradfield, A. E. See Orton, K. J. P.
- Bradley, A. J., and Thewlis, J., crystal structure of α -manganese, A., 814.
- Bradley, C. E., Gibbons, W. A., and Naugatuck Chemical Co., combining halogen-containing materials with rubber, etc., (P.), B., 534.
- Bradley, C. E. See also Whittelsey, T.
- Bradley, H., adsorption isothermals, A., 821.
- Bradley, H., and Colin-Russ, A., wetted insoluble leather, B., 949.
- Bradley, J., and Metropolitan-Vickers Electrical Co., Ltd., manufacture of high electrical resistances, (P.), B., 727.
- Bradley, L., and McKeefe, E. P., production of caustic alkali, etc., (P.), B., 814.
- Bradley, L., McKeefe, E. P., and Bradley-McKeefe Corporation, treatment of black liquor; treatment of residual liquor [from wood pulp manufacture], (P.), B., 139.
treatment of residual [sulphite] liquors, (P.), B., 814.
- Bradley, L. See also Bradley-McKeefe Corporation.
- Bradley, M. J., and Wilson, H. E., lubricants for ground-glass joints, B., 75.
- Bradley-McKeefe Corporation, Bradley, L., and McKeefe, E. P., production of sulphites, (P.), B., 777.
- Bradley-McKeefe Corporation. See also Bradley, L.
- Bradner, D. B., and Federal Laboratories, Inc., production of lachrymating gases, (P.), B., 173.
- Bradshaw, G. W., apparatus for treating fish meal, guano, or the like products by means of a solvent for the recovery of residual oils or fats, (P.), B., 530.
- Bradshaw, H. See Hahn, F. C.
- Bradt, W. E. See Lyons, R. E.
- Brady, E. J., specifications for lining and checker brick for water-gas manufacture, B., 410.
purification of gas, (P.), B., 645.
- Brady, F. L. See Dufton, A. F., and Stradling, R. E.
- Brady, J. D., and Brady Process Co., treatment of impure petroleum oils, (P.), B., 626.
- Brady, O. L., and Bennett, C. L., isomerism of the oximes. XXX. Preparation of *o*-methoxybenzaloxime from bisnitrosyl-*o*-methoxybenzyl, A., 563.
- Brady, O. L., and Goldstein, R. F., isomerism of the oximes. XXXI. Furfuraldoximes and 2-methoxy- and 4-methoxy-1-naphthaldoximes, A., 973.
- Brady, O. L., and Klein, L., isomerism of the oximes. XXIX. Isomeric *p*-nitrobenzyl and methyl ethers of some aldoximes, A., 563.
- Brady Process Co. See Brady, J. D.
- Bräutigam, M. See also Biltz, W., and Klemm, W.
- Bragg, G. A., and Metals Recovery Co., concentration of slimes by flotation, (P.), B., 302.

- Bragg, (Sir) W. H., organic crystals, A., 97.
 Tyndall's experiments on magne-crystalline action, A., 1016.
 Bragg, W. L., structure of phenacite, Be_2SiO_5 , A., 97.
 X-ray analysis of crystal structures and its relation with chemical constitution, A., 97.
 structure of silicates, A., 1015.
 Bragg, W. L., and West, J., structure of certain silicates, A., 501.
 Brahdry, M. B., lactate metabolism in infants, A., 1218.
 Brahm, C., determination of the digestibility of foodstuffs containing cellulose with the help of stomach bacteria, A., 77.
 Brahm, C., Andresen, G., and Prillwitz, R., volatile fatty acids formed by the acid fermentation of foodstuffs. II., A., 907.
 sterilisation of green fodder by a liquid medium. I., B., 426.
 Brahmaehari, B. B., constants of cow ghee, B., 973.
 Brahmachari, B. B., and Chatterjee, N. K., food value of the nut of *Trapa bispinosa*, B., 954.
 Brain, R. T., and Kay, H. D., kidney phosphatase. II. The enzyme in disease, A., 1106.
 Brainin, C. S., and Baker & Co., Inc., [platinum-copper] alloy, (P.), B., 705.
 Brake, H. See Meerwein, H.
 Brakefield, J. L., detoxication of benzoic acid in man, A., 1107.
 Braley, S. A., and Rippie, C. W., transference numbers of sodium and potassium in mixed chloride solution, A., 733.
 Brallier, P. S., titanous chloride for the determination of iron and of chloric acid, B., 652.
 Braman, W. W. See Forbes, E. B.
 Bramkamp, R. B. See Bodansky, M.
 Bramley, A., Maxwell's equations and atomic dynamics, A., 89.
 dielectric constant of bromine, A., 293.
 index of refraction and dielectric constant of water vapour, A., 610.
 diffusion of carbon and nitrogen into iron and steel. II. Diffusion of carbon and nitrogen, B., 485.
 Bramley, A., and Beeby, G. H., gaseous cementation of iron and steel. II. Cementation with pyridine and methyl cyanide, B., 485.
 Bramley, A., and Jinkings, A. J., gaseous cementation of iron and steel. I. Cementation by carbon monoxide, B., 485.
 diffusion of carbon and nitrogen into iron and steel. I. Diffusion of carbon, B., 485.
 Bramley, A., and Lawton, G., gaseous cementation of iron and steel. III. Influence of hydrocarbons on the carburisation of iron and steel, B., 844.
 Bramwell, B., volumetric displacement apparatus for controlling the supply of gas for chlorinating water, etc., (P.), B., 894.
 Bramwell, F. H., and Atmospheric Nitrogen Corporation, catalytic apparatus [for synthesis of ammonia], (P.), B., 252*.
 Branch, G. E. K., and Jaxon-Deelman, J., mechanism of the change of isonitro- to nitro-compounds, A., 852.
 Branco, H. W. A., production of artificial mineral water, (P.), B., 205.
 preparation of artificial medicinal waters [from coal], (P.), B., 507.
 Brand, A. [with Wendel, G., and Horn, O.], reduction of organic halogen compounds. VIII. $\beta\beta\gamma\gamma$ -Tetrachloro- $\alpha\alpha\delta\delta$ -tetra-*p*-tolylbutane and its derivatives. IX. Catalytic reduction of $\alpha\alpha\alpha$ -trichloro- $\beta\beta$ -diarylethanes, A., 549.
 Brand, K., and Kranz, K. W., thiophenols. XI. Refractometry of methoxy- and methylmercapto-compounds, A., 555.
 Brandegger, M., production of a detergent paste, (P.), B., 728.
 Brannenburgh, F., production of sulphuric acid in a reaction tube, (P.), B., 480.
 Brannenburgh, W. See Hahn, G.
 Brandes, H., theory of crystal growth, A., 504.
 Brandes, H. See also Schmalfuss, H.
 Branul, A. See Strache, H.
 Brandt, F. See Emmert, B.
 Branwood, J., apparatus for the continuous [fluid] treatment of textile fibres in skein form, (P.), B., 600.
 Bransom, W. R., and Cobb, J. W., influence of the ash constituents in the carbonisation and gasification of coal; Gas Fellowship 1927 Rept., B., 833.
 Branting, B. F. See Bonner, W. D.
 Brash, W., chemistry of palm oil, B., 371.
 Brasn, W. See also Denham, W. S.
 Brass, J., furnaces burning pulverised fuel, (P.), B., 211.
 Brassert, H. A., Waggaman, W. H., and Easterwood, H. W., production of phosphoric acid, (P.), B., 331*.
 Brating, K., purification of crude starch, (P.), B., 921.
 Brauchli, E., and Schnider, O., ionic changes in the blood with narcotics and stimulants, A., 173.
 Braudo, K. See Rakuzin, M. A.
 Brauer and Ruthsatz, analysis of fluorspar, A., 846.
 Braun, H. A., *Mentha*. XI. Oil of *Mentha canadensis*, L., B., 378.
 Braun, J. von, synthesis of triphenyl, A., 655.
 Braun, J. von [with Bayer, O., Brauns, (Frl.) L., Jungmann, H., Reutter, J., Rohmer, A., Stuckenschmidt, A., and Zobel, F.], tetraphan, A., 257.
 Braun, J. von, and Bayer, O., synthesis of the eight-membered 7:8-benzoheptamethylencimine, A., 673.
 Braun, J. von, and Brauns, L., constitutive factors governing the pharmacological activity of atophan, A., 675.
 Braun, J. von, and Cahn, R. S., morphine alkaloids. VII., A., 266.
 Braun, J. von, and Goll, O., relative stability of cyclic bases. XIII., A., 366.
 hexamethylencimine. III., A., 862.
 Braun, J. von, Jostes, F., and Heymons, A., imide chlorides and imide bromides of aliphatic acids. I., A., 231.
 Braun, J. von, Jostes, F., and Münch, W., imide chlorides and imide bromides of aliphatic acids. II., A., 547.
 Braun, J. von, and Münch, W., decarboxylated peptides and their derivatives. I., A., 344.
 Braun, J. von, and Rath, E., benzopolymethylene compounds. XIII., A., 666.
 Braun, J. von, and Tauber, L., tenacity of organic radicals. VI., A., 1179.
 Brauner, B., atomic weight of silver, A., 289, 493.
 Braunkohlen-Produkte Akt.-Ges., cracking of mixtures of hydrocarbons poor in hydrogen, (P.), B., 182.
 production of viscous oils from cracked distillates, (P.), B., 245.
 continuous cracking of bituminous materials, (P.), B., 245.
 Braunkohlen-Produkte Akt.-Ges., Bube, K., and Erlenbach, E., obtaining low-boiling hydrocarbons and other products from distillation products derived from bituminous materials, (P.), B., 245.
 Braunmühl, H. J. von, temperature variation of the dielectric constants of gases, A., 294.
 Brauns, D. H., optical rotation and atomic dimension. VI., A., 93.
 vacuum oven and thermoregulator, A., 438.
 Brauns, (Frl.) L. See Braun, J. von.
 Bravard, J. See Dubrisay, R.
 Bravo, F. M. crystal structure of nickel oxide, cobalt oxide, and lead sulphide, A., 190.
 Bray, M. W., and Peterson, C. E., pulping flax straw; hydrolysis with sodium sulphite, B., 327.
 Bray, M. W. See also Schafer, E. R.
 Bray, R. H., and Adams, R., selective reduction of furfuralacrolein [furfuralacetaldehyde] by means of platinum oxide-platinum black and hydrogen. XVI., A., 973.
 Bray, U. B., activity coefficients of electrolytes. I. Bivalent salt and the ion attraction theory, A., 1140.
 Bray, U. B. See also Walker, A. C.
 Brayshaw, E. R. See Radiation, Ltd.
 Brayshaw, S. N. See Radiation, Ltd.
 Breazeale, J. F., and Burgess, P. S., availability of phosphates in calcareous or alkaline soils, B., 454.
 reaction between calcium sulphate and sodium carbonate, and its relation to the reclamation of black alkali lands, B., 637.
 Breazeale, J. F. See also Burgess, P. S., and McGeorge, W. T.
 Brecht, W., and Schaub, E., measurement of the "wetness factor" of mechanical wood pulp by the Schopper-Riegler apparatus, B., 744.
 Breckenridge, G. F. See Randall, M.
 Bredereck, H. See Helferich, B.
 Bredig, G., and Allolio, R., X-ray studies of catalytically active metals, A., 502.

- Bredig, G., and Bayer, R., vapour pressure of the binary system methyl alcohol-water, A., 1140.
vapour pressure of the ternary system methyl alcohol-methyl acetate-ethyl acetate, A., 1142.
- Bredig, G., and Elöd, E., production of hydrocyanic acid, (P.), B., 602*.
- Bredig, G., Elöd, E., and Koepp & Co., R., production of hydrocyanic acid, (P.), B., 108*.
- Bredig, G., and Shirado, M., vapour pressure and specific gravity of aqueous hydrocyanic acid solutions, A., 819.
- Bredig, G., and Siebermann, K., determination of degree of acidity of wines with diazoacetic ester, B., 686.
- Bredig, G. See also Koepp & Co., R.
- Bredig, M. A. See Kallmann, H.
- Bredt, J., and Pinten, P., chromic acid oxidation of bornyl chloride to *p*-ketobornyl chloride, A., 156.
- Bredt, O. P. C., and Trojan Powder Co., conversion of alkaline-earth formates [into oxalates], (P.), B., 459.
- Bredt-Savelsberg, M., and Rumscheidt, C., enolisation of camphor. II. Camphor-enol ethyl ether (2-ethoxybornylene), A., 464.
- Bredt-Savelsberg, M., Zaunbrecher, K., and Knieke, L., Manasse's ketonic acid, $C_{10}H_{16}O_3$, from camphorquinone, A., 1068.
- Brégeat, J. H., separation of the constituents of [mineral oil] emulsions, (P.), B., 182.
- Brégeat, J. H., and Brégeat Corporation of America, recovery of camphor and naphthalene contained in gaseous mixtures, (P.), B., 173*.
- Brégeat Aktien-Gesellschaft, recovery [of volatile solvents] by the Brégeat system, B., 239.
- Brégeat Corporation of America. See Brégeat, J. H.
- Brégeat, L., air-gas producing apparatus, (P.), B., 596.
- Brehmer, von, effect of potassium ions on potatoes; effect of root activity of plants on the soil, B., 587.
- Breidenfeld, J. See Kapfen, H.
- Breit, G., unidirectional quanta in wave mechanics, A., 606.
- Breiting, G. See Grube, G.
- Brekke, V. See Outhouse, J.
- Bremer, L., rotating filter stand, A., 642.
absorption apparatus for the determination of organic vapours in air and gas, B., 290.
- Bremhorst, A., preparation of metallic cobalt from cobaltiferous smelter residues, B., 783.
- Brémond, E. See Fabre, J. H.
- Bremont, P., study of the firing and glazing of porcelain and stoneware by measuring the porosity, B., 141.
- Brenchley, W. E., and Warrington, K., rôle of boron in the growth of plants, A., 385.
- Brendel, C. See Spengler, O.
- Brender à Brandis, G. A., permissible sulphur content of gas oils for the production of [carburetted] water-gas, B., 546.
- Brennecke, A., casting tungsten carbide and other alloys having high m. p., (P.), B., 659.
- Brenner, R. E., electrolyte for lead accumulators; galvanic cell, (P.), B., 820.
- Brenner, W., reaction of Finland soils, B., 309.
- Brentano, J., intensity measurements of X-ray reflexions from fine powders, A., 1012.
- Brentano, J., and Dawson, W. E., determination of the lattice spacing and of the rhombohedral angle of magnesium carbonate from a micro-crystalline powder, A., 297.
- Brès, P., non-rusting steel alloys, (P.), B., 658.
- Breslau, J., and Compagnie de l'Azote et des Fertilisants S.A., manufacture of alkali-nitrogen fertilisers having carbamide as their base, (P.), B., 263*.
removing dust from calcium cyanamide and deodorising the same, (P.), B., 310.
- Breslau, J., Goudet, C., and Société d'Études Chimiques pour l'Industrie, manufacture of carbamide from cyanamide, (P.), B., 507*.
- Brester, A., potential measurements in dilute solutions of electrolytes, A., 734.
- Brethrick, D., and Glossop, G. J., low-temperature carbonisation of coal, lignite, etc., (P.), B., 930.
- Bretscher, E. See Rule, H. G.
- Brewer, A. K., ignition of carbon monoxide and oxygen, A., 1147.
- Brewer, F. M., and Dennis, L. M., germanium. XIX. Vapour pressure of germanium tetrabromide, A., 818.
germanium. XXII. Dihalides of germanium, A., 1156.
- Brewer, P. H., and Carr, R. H., fertility of a soil as related to the forms of its iron and manganese, B., 421.
- Brewster, O. C. See Paulus, M. G.
- Breyer, F. G. See New Jersey Zinc Co.
- Bricker, F., elimination of lead by the secretion of the digestive glands, A., 173.
- Brickwedde, F. G., light-sensitiveness of zinc and silver salts, A., 634.
- Bricout, P., value of the potential in the interior of a moving group of electrons, A., 85.
quantitative study of the luminescence of mercury vapour excited by electronic shock, A., 1125.
- Bridel, M., and Aagaard, C., melezitose a compound of sucrose with dextrose? A., 859.
- Bridel, M., and Aagaard, T., enzymic hydrolysis of turanose, A., 1116.
- Bridge, W. G., Pervier, W. A., and Parkhurst, C. E., muffle furnace, (P.), B., 897.
- Bridgeman, O. C., fixed point for calibration of pressure gauges; vapour pressure of carbon dioxide at 0°, A., 615.
equation of state for gaseous carbon dioxide, A., 615.
- Bridgeman, O. C. See also Beattie, J. A.
- Bridges, W., apparatus for boiling or otherwise treating cork and like materials, (P.), B., 362.
- Bridgess, M. P. See Allen, C. F. H.
- Bridgman, (Miss) J. See Glasstone, S.
- Bridgman, P. W., breakdown of atoms at high pressures, A., 183.
transverse thermo-electric effect in metal crystals, A., 402.
- Bridgwater, E. R., Powers, D. H., and Du Pont de Nemours & Co., E. I., manufacture of an age-resisting rubber compound, (P.), B., 534.
- Briefer, M., and Cohen, J. H., gelatin viscosity and related problems, B., 231.
- Briescu, F. von. See Terwilliger, C. O.
- Brigaudet, M. M. See Carpentier, M. G.
- Briggs, A. J. See Syracuse Pulverizer Corporation.
- Briggs, A. P., rôle of acetaldehyde in animal metabolism, A., 170.
- Briggs, G. H., straggling of α -particles from radium-C, A., 392.
decrease in velocity of α -particles from radium-C, A., 393.
- Briggs, R. M. See Jones, L. A.
- Brightman, R. See British Dyestuffs Corporation.
- Brigl, P., and Scheeyer, W., carbohydrates. V. Bitter taste of sugar derivatives, A., 43.
- Brill, F. A. See Cantelo, R. C.
- Brill, R. See Jänecke, E.
- Brills Manufacturing Co., Inc., method and apparatus for making metal wool from wire, (P.), B., 370.
- Brimeyer, F. See Société Luxembourgeoise des Hydrocarbures.
- Brindley, W. H., and Pyman, F. L., alkaloids of ippecacuanha, A., 682.
- Briner, E., influence of moisture on the reaction between nitric oxide and oxygen, A., 214.
stabilised aqua regia, A., 432.
- Briner, E., and Agathon, O., additive compounds of phenols and ammonia. II. Ammoniation of mononitrophenols; higher ammoniates, A., 1181.
- Briner, E., Boner, J., and Rothen, A., formation of nitric oxide at high temperatures, A., 121.
- Briner, E., Ferrero, A., and Paillard, B., catalytic preparation of amines. II. Preparation of the toluidines and *m*-phenylenediamine, A., 49.
- Briner, E., Heberlein, R., and Rothen, A., conductivity of stable aqua regia, A., 23.
- Briner, E. See also Berthoud, A.
- Brinkman, R. See Buytendyk, F. J. J.
- Brinkmann, E. See Hüchel, W.
- Brinton, P. H. M.-P. See Sarver, L. A.
- Brintzinger, H., rapid dialysis of solutions of silicic acid, A., 111.
separation of silver and lead, A., 535.
influence of hydrophilic colloids on the conductivity of acids and bases, A., 1138.
- Brintzinger, H., and Maurer, K., effect of chemically active rays on gelatin, A., 201.
- Brintzinger, H., and Oschatz, F., potentiometric titration of molybdenum, A., 953.
- Brintzinger, H., and Rodis, F., potentiometric method for separation of tin and antimony, A., 1047.
determination of sulphide, thiosulphate, and sulphur in insoluble carbonates, especially in commercial barium carbonate, B., 841.
- Brintzinger, H. See also Guthier, A.

- Brioux, *C.*, fertilising action of cyanamide and its derivatives, *B.*, 171.
- Brioux, *C.*, and Pien, *J.*, electrometric and Hutchinson-MacLennan methods of measuring lime requirements of acid soils, *B.*, 171. lime requirement of acid soils; slow reappearance of acidity after neutralisation, *B.*, 611. quinhydrone electrode applied to the determination of *pH* values of soils, *B.*, 886.
- Briscoe, *H. T.*, calcination of dolomitic limestone, *B.*, 580.
- Briscoe, *H. T.*, and Mathers, *P. C.*, plasticity of finishing limes, *B.*, 190.
- Briscoe, *H. V. A.*, Robinson, *P. L.*, and Smith, *H. C.*, electrostatic charge on glass floats in very dry liquids, *A.*, 192. density of boron trichloride and the suspected variation in the atomic weight of boron, *A.*, 392.
- Briscoe, *H. V. A.* See also Madgin, *W. M.*
- Briskin, *O. M.* See Diehno, *M. A.*
- Britische Holz-Agentur Akt.-Ges., production of soft pliable wood [by steaming], (*P.*), *B.*, 816.
- British Alizarine Co., Ltd., Dawson, *W. H.*, and Beghin, *P.*, manufacture of dyes [isoviolanthrone], (*P.*), *B.*, 772.
- British Alizarine Co., Ltd., Dawson, *W. H.*, and Soutar, *C. W.*, [dyes for] dyeing acetyl [cellulose acetate] silk, (*P.*), *B.*, 211.
- British Alizarine Co., Ltd., Dawson, *W. H.*, Soutar, *C. W.*, and Wood, *R. J.*, dyeing of cellulose ester artificial silk, (*P.*), *B.*, 812.
- British Bead Printers, Ltd., Vredenberg, *J. C.*, and Heynert, *F. A. H.*, ornamentation of fabrics, leather, etc., (*P.*), *B.*, 872.
- British Celanese, Ltd., Addy, *C. W.*, Billing, *J.*, and Halkyard, *H.*, treatment [sizing] of yarns or threads, (*P.*), *B.*, 214.
- British Celanese, Ltd., Dickie, *W. A.*, and Halkyard, *H.*, manufacture [finishing] of fabrics, (*P.*), *B.*, 747.
- British Celanese, Ltd., and Ellis, *G. H.*, dyeing or colouring of yarns and fabrics or other materials [containing cellulose acetate silk], (*P.*), *B.*, 105. dyeing or colouring of yarns and fabrics or other materials, (*P.*), *B.*, 215. dyeing, printing, and stencilling of cellulose acetate or products made therewith, (*P.*), *B.*, 216, 650. treatment of yarns and fabrics, (*P.*), *B.*, 247. treatment of cellulose acetate or products made therewith, (*P.*), *B.*, 406. dyeing, printing, or stencilling cellulose acetate materials, (*P.*), *B.*, 650.
- British Celanese, Ltd., Ellis, *G. H.*, and Goldthorpe, *W. O.*, dyeing, printing, or stencilling of cellulose acetate materials, (*P.*), *B.*, 475.
- British Celanese, Ltd., Ellis, *G. H.*, and Mann, *R. J.*, production of new fabrics [by effects on textile materials containing cellulose acetate], (*P.*), *B.*, 874.
- British Celanese, Ltd., Palmer, *C. W.*, and Fulton, *S. M.*, treatment of threads, fabrics, or other materials composed of or containing artificial [cellulose acetate] filaments, (*P.*), *B.*, 9. [dyeing of "mixed" cellulose acetate] threads, cords, and fabrics, (*P.*), *B.*, 905.
- British Celanese, Ltd., and Skertchly, *W. P.*, purification of acetic anhydride, (*P.*), *B.*, 541.
- British Celanese, Ltd. See also Ellis, *G. H.*
- British Cotton and Wool Dyers' Association, Ltd., Barker, *E. A.*, and Ellison, *F.*, squeezing and guide rollers, etc. for yarn dyeing machines, (*P.*), *B.*, 105*.
- British Cyanides Co., Ltd., and Rossiter, *E. C.*, manufacture of artificial resins, (*P.*), *B.*, 305.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, and Chapman, *F.*, wetting-out agents or emulsifiers, and their use in the textile and other industries, (*P.*), *B.*, 841.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Chorley, *P.*, and Brightman, *R.*, manufacture of new azo-dyes and process of dyeing, (*P.*), *B.*, 518. dyeing artificial silk, (*P.*), *B.*, 520. manufacture of new intermediate compounds and of azo-dyes therefrom, (*P.*), *B.*, 869.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Chorley, *P.*, and Butler, *C.*, dyeing artificial [regenerated cellulose] silk, (*P.*), *B.*, 812, 841.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, and Hill, *J.*, new azo-dyes and process of dyeing cellulose acetate, (*P.*), *B.*, 518.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Shepherdson, *A.*, and Davidson, *A.*, colouring of cement, concrete, and the like, (*P.*), *B.*, 655.
- British Dyestuffs Corporation, Ltd., Baddiley, *J.*, Shepherdson, *A.*, and Thornley, *S.*, manufacture of benzanthrone derivatives, (*P.*), *B.*, 837. manufacture of new vat dyes [of the dibenzanthrone series], (*P.*), *B.*, 837.
- British Dyestuffs Corporation, Ltd., and Coffey, *S.*, manufacture of acyl halides, (*P.*), *B.*, 93.
- British Dyestuffs Corporation, Ltd., Cronshaw, *C. J. T.*, Baddiley, *J.*, and Chapman, *E.*, friction surfaces, etc., (*P.*), *B.*, 393.
- British Dyestuffs Corporation, Ltd., Cronshaw, *C. J. T.*, and Naunton, *W. J. S.*, use of mono- and di-carbalkoxydiarylthio-carbamides as accelerators in the vulcanisation of rubber, (*P.*), *B.*, 230.
- British Dyestuffs Corporation, Ltd., Dyson, *G. M.*, Mason, *F. A.*, and Renshaw, *A.*, manufacture of carbazides and thiocarbazides of the naphthalene series, (*P.*), *B.*, 902.
- British Dyestuffs Corporation, Ltd., Everatt, *R. W.*, and Rodd, *E. H.*, preparation of aromatic amines and derivatives; [separation of mono- and di-alkylarylamines], (*P.*), *B.*, 648.
- British Dyestuffs Corporation, Ltd., Fairbrother, *T. H.*, and Renshaw, *A.*, disinfectant tablets, bricks, etc., (*P.*), *B.*, 766.
- British Dyestuffs Corporation, Ltd., and Hailwood, *A. J.*, electrolytic desulphonation of anthraquinonesulphonic acids, (*P.*), *B.*, 647.
- British Dyestuffs Corporation, Ltd., Hollins, *C.*, and Chapman, *E.*, decolorisation of aqueous liquids, (*P.*), *B.*, 897.
- British Dyestuffs Corporation, Ltd., and Horsfall, *R. S.*, dyeing furs, (*P.*), *B.*, 438.
- British Dyestuffs Corporation, Ltd., Horsfall, *R. S.*, Lawrie, *J. G.*, and Hill, *J.*, dyeing cellulose esters and ethers, (*P.*), *B.*, 776.
- British Dyestuffs Corporation, Ltd., Jackson, *H.*, and Carter, *D.*, production of uni- or multi-coloured effects [on textiles, etc.], (*P.*), *B.*, 105.
- British Dyestuffs Corporation, Ltd., and Mendoza, *M.*, pyrazolone dyes from amino-derivatives of 4-hydroxy-3-carboxydiphenyl sulphide, (*P.*), *B.*, 597.
- British Dyestuffs Corporation, Ltd., Mendoza, *M.*, and Saunders, *K. H.*, azo-dyestuffs, (*P.*), *B.*, 101.
- British Dyestuffs Corporation, Ltd., Rodd, *E. H.*, and Everatt, *R. W.*, manufacture of dinitrotoluene, (*P.*), *B.*, 101. separation of tertiary from secondary and primary aromatic amines, (*P.*), *B.*, 627.
- British Dyestuffs Corporation, Ltd., Rodd, *E. H.*, and Linch, *P. W.*, preparation of triarylmethane dyes, (*P.*), *B.*, 598.
- British Dyestuffs Corporation, Ltd., Rogers, *W. D.*, Stubbings, *W. V.*, and Emerson, *P. W.*, manufacture of halogenated indanthrones, (*P.*), *B.*, 550.
- British Dyestuffs Corporation, Ltd., Saunders, *K. H.*, and Goodwin, *H.*, [mordant] azo-dyes, (*P.*), *B.*, 325.
- British Dyestuffs Corporation, Ltd., Saunders, *K. H.*, and Mendoza, *M.*, manufacture of intermediates and [azo-] dyestuffs, (*P.*), *B.*, 8.
- British Dyestuffs Corporation, Ltd., and Shepherdson, *A.*, manufacture of anthraquinone derivatives, (*P.*), *B.*, 550.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, and Davidson, *A.*, dyeing acetate silk, (*P.*), *B.*, 438.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, and Hailwood, *A. J.*, preparation of indanthronedisulphonic acid and indanthrone, (*P.*), *B.*, 697. manufacture of new vat dyes and intermediates for vat dyes, (*P.*), *B.*, 901.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, and Tatum, *W. W.*, anthraquinone dyes and dyeing therewith, (*P.*), *B.*, 771.
- British Dyestuffs Corporation, Ltd., Shepherdson, *A.*, Tatum, *W. W.*, and Bunbury, *H. M.*, manufacture of anthraquinone derivatives, (*P.*), *B.*, 518. manufacture of anthraquinone intermediates, (*P.*), *B.*, 518.
- British Dyestuffs Corporation, Ltd., and Smith, *L.*, discharge effects on [textile] materials containing cellulose acetate, (*P.*), *B.*, 71.
- British Dyestuffs Corporation, Ltd., and Tatum, *W. W.*, manufacture of intermediates of the anthraquinone series, (*P.*), *B.*, 437. manufacture of anthraquinone intermediates, (*P.*), *B.*, 518. anthraquinone [acid] dyes, (*P.*), *B.*, 578.
- British Dyestuffs Corporation, Ltd., and Thornley, *S.*, new black and grey vat dyestuffs [of the dibenzanthrone series], (*P.*), *B.*, 837.
- British Dyestuffs Corporation, Ltd., and Wyler, *M.*, manufacture of quinoline derivatives, (*P.*), *B.*, 899.

- British Dyestuffs Corporation, Ltd. See also Baddiley, J., Bunbury, H. M., Cronshaw, C. J. T., Fairbrother, T. H., and Perkin, W. H., *jun.*
- British Enka Artificial Silk Co., Ltd., and Naaml. Vennoots. Nederlandsche Kunstzijdefabriek, manufacture of artificial silk, (P.), B., 328.
manufacture and use of artificial silk, etc., (P.), B., 406.
manufacture of flat ribbon-shaped artificial textile fibres from viscose, (P.), B., 472.
- British Furnaces, Ltd., and Smith, E. W., furnace for heating metal sheets, etc., (P.), B., 754.
- British Glues & Chemicals, Ltd., Duneale, R., and Cotes, H. J., manufacture of artificial horn, (P.), B., 565.
- British Portland Cement Manufacturers, Ltd., Baxter, J. G., Bamber, M. K., and Dickinson, W. J., manufacture of [fused] cement, (P.), B., 815.
- British Separators, Ltd., and Cahill, A. G., centrifugal separating apparatus, (P.), B., 800.
- British Synthetics, Ltd., and Higgins, E. B., manufacture of intermediate products [2:3-hydroxynaphthoic arylides] suitable for the preparation of azo-dyestuffs, (P.), B., 102.
manufacture of arylamides of *o*-hydroxycarboxylic acids and of intermediate products for azo-dyes, (P.), B., 437.
manufacture of intermediate products for azo-dyes, (P.), B., 551.
manufacture of chlorides of *o*-hydroxycarboxylic acids of polynuclear hydrocarbons, (P.), B., 903.
- British Thomson-Houston Co., Ltd., and Boyer, S., purification of gallium, indium, and similar metals, and their alloys, (P.), B., 80.
- British Thomson-Houston Co., Ltd., and Brown, H. D., electric discharge devices, (P.), B., 226.
- British Thomson-Houston Co., Ltd., and Chapman, V. J., electric [arc] furnace, (P.), B., 303.
- British Thomson-Houston Co., Ltd., and Charlton, E. E., electron discharge apparatus [high-frequency signals detector], (P.), B., 17.
- British Thomson-Houston Co., Ltd., and Davey, W. P., coating compositions, (P.), B., 916.
- British Thomson-Houston Co., Ltd., and Dawson, E. S., *jun.*, preparation of resinous condensation products, (P.), B., 259.
- British Thomson-Houston Co., Ltd., and Devers, P. K., apparatus and process for fusing silica, (P.), B., 141.
- British Thomson-Houston Co., Ltd., Dewey, D. A., and Spencer, C. D., [flame]-tinting of glass, (P.), B., 908.
- British Thomson-Houston Co., Ltd., and Herzog, E., treatment of silica articles, (P.), B., 366.
- British Thomson-Houston Co., Ltd., and Inman, G. E., treating filaments for electric incandescence lamps, etc. [by spraying], (P.), B., 705.
- British Thomson-Houston Co., Ltd., Ipsen, C. L., and Otis, A. N., [supporting sinuous resistors in] electric furnaces, (P.), B., 608.
- British Thomson-Houston Co., Ltd., and Jones, C. E., method and apparatus for electroplating, (P.), B., 449.
- British Thomson-Houston Co., Ltd., and Kelley, F. C., protecting metals against oxidation at high temperatures, (P.), B., 582.
- British Thomson-Houston Co., Ltd., and Langmuir, I., electron discharge device, (P.), B., 850.
- British Thomson-Houston Co., Ltd., Langmuir, I., and Alexander, P. P., methods and apparatus for fusing metals by the electric arc process for welding, cutting, etc., (P.), B., 449.
- British Thomson-Houston Co., Ltd., and Mackay, G. M. J., thermionic electrode, (P.), B., 416.
- British Thomson-Houston Co., Ltd., and Miller, L. B., moulding silica, (P.), B., 366.
- British Thomson-Houston Co., Ltd., Newman, D. F., and Steenstrup, C., electric furnace, (P.), B., 914.
- British Thomson-Houston Co., Ltd., and Otis, A. N., [device for removing the lids of] furnaces, (P.), B., 434.
- British Thomson-Houston Co., Ltd., Otis, A. N., and Ipsen, C. L., [heating elements for] electric furnaces, (P.), B., 881.
- British Thomson-Houston Co., Ltd., and Peterson, C. F., processes of making moulded articles, (P.), B., 119.
- British Thomson-Houston Co., Ltd., and Seede, J. A., electric furnace, (P.), B., 116.
[regulating position of electrodes in] electric furnaces, (P.), B., 727.
- British Thomson-Houston Co., Ltd., and Smith, A. R., [automatic system for] furnace regulation, (P.), B., 863.
- British Thomson-Houston Co., Ltd., and Thomson, E., method and apparatus for purifying quartz, (P.), B., 76.
- British Thomson-Houston Co., Ltd., and Unger, M., induction furnaces, (P.), B., 705*.
electric [induction] furnace, (P.), B., 882*.
- British Thomson-Houston Co., Ltd., and Warner, J. C., electron discharge apparatus, (P.), B., 258.
- British Thomson-Houston Co., Ltd., and Watson, H. L., production of silica articles, (P.), B., 779.
- Britten, W. R. J. See Bover, J. R.,
- Britton, E. C., and Dow Chemical Co., production of pyrrolidine derivatives, (P.), B., 268.
- Britton, E. C. See also Hale, W. J.
- Britton, H. T. S., basic sulphate of copper, A., 30.
electrometric study of tungstic acid, A., 223.
soluble alkaline-earth aluminates, A., 325.
electrometric study of the precipitation of silicates, A., 325.
electrometric study of the precipitation of phosphates, A., 435.
- Britton, J. W. See Hale, W. J.
- Britton, R. P. L. See Griffiths Brothers & Co., London, Ltd.
- Brusova, L. J. See Nametkin, S. S.
- Broadbridge, W., Edser, E., Stenning, W. W., and Minerals Separation North American Corporation, drying of finely-divided carbonised fuel, (P.), B., 68*.
- Broadway Trust Co., Ltd., Burney, C. D., and Weller, H. O., treatment of loose or fibrous organic materials and manufacture of light forms of concrete, (P.), B., 13.
- Broch, E., precise measurements of the lattice constants of magnesium oxide, sulphide, and selenide and manganous oxide and selenide, A., 814.
- Brock, F. P., and Bakelite Corporation, plasticising phenolic moulding materials, (P.), B., 119.
- Brock, W. S. See Reedy, J. H.
- Brocklehurst, R. J., and Henderson, Y., buffering of the tissues as indicated by carbon dioxide capacity of the body, A., 585.
- Brockman, C. J., short-circuited cell for electro-organic reductions, A., 523.
- Broder, J. See Mösćicki, I.
- Brodeur, L. A. E., purification of gases from producers, (P.), B., 835.
- Brodie, G. H., Jennings, W. H., and Hayes, A., heat of formation of cementite, B., 14.
- Brodie, R. K., Cox, C. H., and Hutchins, W. D., determination of free fatty acid of oil in seed, B., 945.
- Brodtkorb, F. See Hüttig, G. F., and Krauss, F.
- Brodski, A., standard calomel electrodes and their preparation, A., 421.
- Brodski, A., and Cherchever, G., production of ions from solutions of mercury salts in water, A., 421.
- Brodski, D. A. See Rakuzin, M. A.
- Brodsky, A. E., intensity of spectral lines, A., 705.
applicability of Nernst's theory to non-aqueous solutions, A., 735.
- Brody, E., and Millner, T., combustion of carbon monoxide and methane over cupric oxide (Jäger's method of analysis), A., 939.
carbon dioxide-carbon monoxide equilibrium over copper, A., 939.
- Broek, A. G. van den. See Böeseken, J.
- Broeker, W. See Anschütz, L.
- Brönsted, J. N., activity of electrolytes, A., 1027.
- Brönsted, J. N., and King, C. V., dissociation constant of nitroamide, A., 204.
- Brönsted, J. N., and Livingston, R., velocity of ionic reactions, A., 319.
- Brogan, F. J. A., diacyl derivatives of benzidine and *p*-phenylenediamine, A., 760.
- Bromley, T. C. See Mellor, Bromley & Co., Ltd.
- Bronnert, E. See Soieries de Strasbourg Soc. Anon.
- Bronson, H. L., simple automatic mercury still, A., 849.
- Bronstein, K. See Burkser, E.
- Brooke, F. W., and Swindell, W., & Brothers, [electric] furnace and method of operating the same, (P.), B., 583.
- Brooker, L. G. S., Child, R., and Smiles, S., aromatic sulphonyl disulphides, A., 157.
- Brooks, A. P. See Larson, A. T.
- Brooks, B. T., and Mathieson Alkali Works Corporation, chlorination of water, (P.), B., 158.
- Brooks, J., interaction of a finely-divided lead suspension with blood-serum, Ringer solution, and aqueous phosphate solution, A., 893.

- Brooks, *M. M.*, permeability of living cells. VII. Effects of light of different wave-lengths on the penetration of 2:6-dibromophenolindophenol info *Valonia*, A., 1109.
- Brooks, *R. O.*, changes in olive oil after long keeping, B., 660.
- Brophy, *D. H.*, and Van Brunt, *C.*, determination of thoria in tungsten filaments, B., 193.
- Brophy, *G. R.*, and General Electric Co., heat-resisting alloy, (P.), B., 561*.
- Brotherton, *M.* See Richardson, *O. W.*
- Brotherton, *M. H.* See Agnew, *F. E.*
- Brougher, *J. C.*, blood-calcium as affected by insulin, A., 594.
- Broughton, *F.*, and Henshilwood, *A. B.*, apparatus for drying woven and other fabrics, (P.), B., 599.
- Brounse, *B.* See Pavlov, *V.*
- Brouwer, *E.*, vitamin-C content of green grass; weight of organs in scurvy, A., 905.
- Brown, *A. C.*, Pickering, *E. C.*, and Wilson, *F. J.*, reactions of carbhydrazide, A., 232.
- Brown, *A. E.* See Universal Rubber Paviers (Manchester 1923), Ltd.
- Brown, *A. H.*, and Siluminite Insulator Co., Ltd., manufacture of electrical insulators and other moulded articles and the like, (P.), B., 47.
- Brown, *A. L.*, and Westinghouse Electric & Manufacturing Co., phenolic condensation product, (P.), B., 788.
- manufacture of a flexible composite article, (P.), B., 788.
- condensation-product [air-drying] varnish, (P.), B., 884.
- Brown, *B. E.*, determination of carbon and nitrogen on the same soil sample, B., 536.
- Brown, *B. K.*, and Bogin, *C.*, solvent balance [in nitrocellulose lacquers], B., 822.
- Brown, *B. K.*, Bogin, *C.*, and Commercial Solvents Corporation, pyroxylin lacquer composition, (P.), B., 822.
- Brown, *B. K.* See also Burgess Laboratories, Inc., *C. F.*, and Commercial Solvents Corporation.
- Brown, *C. A.*, Esselen, *G. J., jun.*, and Manufacturing Improvement Corporation, method of degreasing skins, (P.), B., 886.
- Brown, *C. H.*, apparatus for the attraction of gasoline, (P.), B., 163.
- Brown, *C. W.* See Molony, *S. B.*
- Brown, *D.*, and Whiddington, *R.*, electron "reflexion" in a vacuum, A., 287.
- Brown, *D.* See also Delaville, *M.*
- Brown, *D. J.* See Nielsen, *R. F.*
- Brown, *E. B.*, and Fleischmann Co., improving the flavour of yeast, (P.), B., 921.
- Brown, *E. D.* See Tsiang, *K.*
- Brown, *F. G.* See Foolprufe Patent Accumulator Co., Ltd.
- Brown, *G. G.*, and Watkins, *G. B.*, gaseous explosions. III. Effect of fuel constitution on rate of rise of pressure, B., 243.
- gaseous explosions. IV. Rate of rise of pressure, velocity of flame travel, and the detonation wave. V. Probable mechanism causing "detonation" in the internal-combustion engine, B., 322.
- Brown, *H.*, preparation of sodium aurothiosulphate, A., 430.
- Brown, *H. D.* See British Thomson-Houston Co., Ltd.
- Brown, *J.*, high-frequency [induction] furnaces, B., 81.
- Brown, *J. B.* See Lee, *M. O.*
- Brown, *J. H.* See Simon-Carves, Ltd.
- Brown, *J. R.* See Donovan, *D. S.*
- Brown, *J. W.*, physiology of apples. VI. Correlation in the individual apple between the mineral constituents and other properties, B., 731.
- Brown, *L.*, and Brown, *W. L.*, peat fuel production, (P.), B., 162.
- Brown, *L. M.*, steel alloy, (P.), B., 847.
- Brown, *O. M.* See Madenwald, *F. A.*
- Brown, *R. L.*, recovering styrene [from carburetted water-gas drip-oil], (P.), B., 962.
- Brown, *R. L.*, and Cooper, *R. B.*, composition of light oils from low-temperature carbonisation of Utah coal, B., 179.
- Brown, *R. S.* See Klein, *C. A.*
- Brown, *W. E.*, Lucas, *G. H. W.*, and Henderson, *V. E.*, anæsthetic value of nitrous oxide under pressure, A., 991.
- Brown, *W. E.*, and United Iron Works, Inc., distilling apparatus [bubbling column], (P.), B., 352.
- Brown, *W. L.* See Brown, *L.*
- Brown Co., preparation of a foodstuff, (P.), B., 265.
- production of high α -cellulose [wood pulp], (P.), B., 935.
- Brown Co. See also Moore, *H. K.*, and Richter, *G. A.*
- Brown Instrument Co., gas analysis apparatus, (P.), B., 400.
- Browne, *A. W.*, Audrieth, *A. F.*, and Mason, *C. W.*, azidothiocarbonic acid. III. Azido lithiocarbonates of lithium, sodium, rubidium, and cesium, A., 430.
- Browne, *A. W.* See also Audrieth, *L. F.*
- Browne, *F. L.*, principle for testing the durability of paints as protective coatings for wood, B., 821.
- Browne, *F. L.*, and Hrubesky, *C. E.*, water-resistant animal glue, B., 231.
- Browne, *L. R.* See Feuge, *J. J.*
- Browne, *O. H.*, and Reid, *E. E.*, reactions of lead tetraethyl, A., 452.
- Browne, *V. B.*, manufacture of magnetic alloys, (P.), B., 448.
- manufacture of sound silicon-iron, (P.), B., 785*.
- production of high-grade silicon-iron, (P.), B., 848*.
- preparation of low-carbon alloys, (P.), B., 912.
- Browning, *C. H.*, Cohen, *J. B.*, Gulbransen, *R.*, Phillis, *E.*, and Snodgrass, *W. R.*, therapeutic action of some bismuthyl derivatives of organic hydroxy-acids, A., 855.
- Brownlee, *H. J.*, furfuraldehyde manufacture from oat hulls. I. The liquid-solid ratio, B., 346.
- Brownlie, *D.*, low-temperature carbonisation; the position in England, B., 177.
- Broxon, *J. W.*, natural ionisation in spherical containers; theoretical, A., 87.
- Brubaker, *M. M.*, and Adams, *R.*, structure of the condensation products of *o*-phthalaldehydic acids with phenols and phenol ethers. VIII, A., 1071.
- Bruce, *D. S.* See Snell, *F. D.*
- Bruchhausen, *F. von*, and Stippler, *H.*, corydaline and *iso*-corybulbine, A., 683.
- Bruckhaus, *W.*, sizing of artificial silk, B., 326.
- Bruckhoff, *A. M.*, degreasing raw wool, etc., (P.), B., 295.
- Bruckner, *V.* See Kiss, *A. von*.
- Brüche, *E.*, effective area of hydrogen and nitrogen molecules towards electrons of slow velocity, A., 4, 492.
- cross-sectional curve of hydrogen chloride for slow electrons and its comparison with the argon curve, A., 181.
- effective cross-sectional area [of molecules] and molecular structure, A., 1011.
- Brüche, *E.* [with Lilienthal, (*Frl.*) *D.*, and Schrödter, (*Frl.*) *K.*], effective cross-section of the noble gases, argon, neon, helium, against slow electrons, A., 1119.
- Brückner, *C.*, action of acetic acid on red lead; formation of basic lead peracetate, B., 139.
- Brückner, *H.*, catalytic chlorination of acetic acid [to monochloroacetic acid], A., 959.
- Brügel, *S.* See Lasch, *F.*
- Brüll, *W.* See Jander, *G.*
- Brüning, *A.*, and Kraft, *B.*, detection of vegetable poisons and drugs in decomposed cadavers, B., 427.
- Brüning, *G. von*. See I. G. Farbenind. A.-G.
- Bruggen, *M. G. van*. See Arkel, *A. E. van*.
- Brugmann, *E. W.* See Clark, *G. L.*
- Brugsch, *T.* See Chemische Fabrik auf Aktieu (vorm. *E. Schering*).
- Bruhat, *G.*, and Pauthenier, *M.*, surface tension of insulating liquids in an electric field, A., 104.
- rotatory power of solutions of tartaric acid, A., 508*.
- Bruhni, *J.* See Lindner, *J.*
- Bruhns, *G.*, [high values for potassium dichromate in determinations of thiosulphate], A., 330.
- Bruijnes, *J.* See Holst, *G.*
- Bruin, *P.* See Aten, *A. H. W.*
- Brukl, *A.* See Moser, *L.*
- Brumfield, *R. C.*, comparison between Rockwell and Brinell hardness, B., 46.
- Brun, *I.* See Burkser, *E.*
- Brun, *P.*, surface tensions of water-alcohol mixtures, A., 409.
- surface tension of liquid mixtures in the neighbourhood of the critical state, A., 508.
- Brun, *P.* See also Müller, *Erich*.
- Brun & Cie, sand washing machines, (P.), B., 13.
- Brune, *R.* See Wagner, *H.*
- Brunet, (*Mlle.*) *A.* See Foex, *G.*
- Brunetti, *R.*, existence of the element of atomic weight 61, A., 190.
- identification of the element of atomic number 61, A., 190.
- X-ray investigations for the identification of the element of atomic number 61 (florentium), A., 714.
- Bruni, *G.*, and Geiger, *E.*, new derivatives of caoutchouc, A., 1080.

- Bruni, G., and Levi, T. G., nature of matured rubber. II, B., 532.
- Brunius, E. See Euler, H. von.
- Brunner, J., and Scheele, E., preserving physiological and like specimens, (P.), B., 208.
- Brunner, K., Grüner, R., and Beneš, Z., diacylamides. II. Preparation of dipropionamide and diisobutyramide, A., 863.
- Brunner, K., and Haslwanter, F., diacylamides. IV. Formation of nitrophenylacetamidines, A., 867.
- Brunner, K., Matzler, (Frl.) M., and Mössmer, V., diacylamides. III. Formation of amidines, A., 867.
- Brunner, K., and Medweth, J., triazoles. IV. Mechanism of Brunner's triazole synthesis, A., 468.
- Brunner, M., inhibition of auto-oxidation of benzaldehyde, A., 1152.
- Brunotte, H. See Aschan, O.
- Bruns, B. P., electrochemical properties of bromine-ether mixtures, A., 832.
- electrochemical preparation of Scheele's green, B., 947.
- Brunt, van. See Van Brunt.
- Bruscoli, G. See Passerini, M.
- Brunson, H. A., polymerisation of indene; tetraindene, A., 654.
- Brunson, H. A., and Goodyear Tire & Rubber Co., treatment of rubber, (P.), B., 610.
- Brunson, H. A., Sebrell, L. B., and Calvert, W. C., new chemical reactions of rubber hydrocarbons; reactions with metallic halides, B., 823.
- Brunson, H. A., Sebrell, L. B., and Vogt, W. W., isolation of the natural oxidation inhibitors of crude *Hevea* rubber, B., 884.
- Brust, A. J. H. See Frenkel, E. W.
- Brustier, V., absorption of ultra-violet light by alkaloids and glucosides, A., 91.
- Brutzkus, calculation of gas analyses, A., 1158.
- Bruylants, P., cyclopropane derivatives, A., 653, 877.
- Bruylants, P., and Dewael, A., reaction of organomagnesium compounds on nitriles; glutaronitrile and magnesium benzyl chloride, A., 233.
- Bruzs, B., corresponding states for the entropy of elements, A., 626.
- Bryans, F., and Rowe, F. M., electrolytic reduction of vat dyes, B., 808.
- Bryant, F. L., granulating dry material, (P.), B., 383.
- Brydowna, (Mlle.) W., action of tungsten hexachloride on magnesium phenyl iodide, A., 138.
- Brydowna, (Mlle.) W. See also Korczyński, A.
- Brysilka, Ltd., and Schubert, F. W., treatment of water for use in the manufacture of artificial silk, (P.), B., 126.
- method and means for washing and conditioning artificial silk wound on bobbins, etc., (P.), B., 811.
- Brysilka, Ltd. See also Schubert, F. W.
- Bryson, F. F. S., electrical conductivity of glasses at high temperatures, B., 877.
- Bu, A., preparation of a cattle food-stuff from herring or other fish, seal, and whalemeat, and the waste products thereof, (P.), B., 171.
- Buadze, S. See Abderhalden, E.
- Bube, K., production of active carbon in a pulverulent form at low temperatures, (P.), B., 133.
- Bube, K. See also Braunkohlen-Produkte Akt.-Ges.
- Bubeck, H., determination of wood gum in celluloses, B., 838.
- Bubla, K., apparatus for impregnating wood, (P.), B., 367.
- Buch, E. See Wrede, F.
- Buchanan, G. H., Griffith, P. W., and American Cyanamid Co., manufacture of a nitrogenous fertiliser, (P.), B., 199.
- Buchanan, G. H., Osborne, J. L., and American Cyanamid Co., converting a cyanide compound [calcium cyanide] into ammonia, (P.), B., 841.
- Buchanan, G. H. See also Landis, W. S.
- Buchanan, J. H., and Peterson, E. E., buffers of milk and buffer value, B., 889.
- Buchanan, J. W., depression of oxidative metabolism and recovery from dilute potassium cyanide poisoning; antagonistic and additive effects of anesthetics and potassium cyanide, A., 276.
- Buchanan, J. W. See also Emerson, O. H.
- Buchbinder, W. C., and Kern, R., blood-calcium deficiency in experimental obstructive jaundice, A., 587.
- Bucherer, H. T., manufacture of dyes [related to indulines and nigrosines], (P.), B., 838.
- production or development of azo-dyes, (P.), B., 869.
- Bucherer, H. T., and Maki, T., new class of vat dyes of the anthraquinone series, A., 1191.
- Buchheim, K. See Steinkopf, W.
- Buchholtz, H. See Schulz, E. H.
- Buchholz, H. See Wilke-Dörfurt, E.
- Buchler, C. C., and Graves, G. D., petroleum waxes, B., 625.
- Buchler, C. C. See also Diggs, S. H.
- Buchner, E. H., Hofmeister series, A., 825.
- vibrating soap jelly, A., 935.
- Buchner, M., cyclic production of soluble salts of organic compounds of an acid character, (P.) B., 733.
- Buchner, W., production of carbon disulphide, (P.), B., 188.
- Buchwald, E., graphical constructions for movements in the Stark effect, A., 83.
- Buchwald, K. W. See Reinhard, M. C.
- Buck, J. S., "ascarite" as a carbon dioxide absorbent, A., 129.
- Buckley, P. S. See Wolfenden, J. H.
- Bucknall, W. R., Carter, S. R., and Wardlaw, W., complex chlorides of tervalent molybdenum, A., 327.
- Buddäus, W., reduction of ores, etc., (P.), B., 942.
- Buddenberg, O. See Diels, O.
- Budnikov, P. P., rate of formation of insoluble anhydrite, A., 214.
- setting of plaster of Paris and existence of soluble anhydrite, A., 731.
- reduction of sodium sulphate to sodium sulphide, B., 10.
- manufacture of sulphuric acid; the Tenteloff process, B., 363.
- setting of dihydrates of calcium sulphate, B., 483.
- Bücher, C., producing a protective coating in water tubes for the purpose of preventing incrustations, (P.), B., 240.
- Büchner, C. See Kreutz, A.
- Büchner, P. C. See Preussische Bergwerks- & Hütten-Akt.-Ges. Abtg. Salz & Braunkohlenwerke.
- Bühl, A., electrical action due to the atomisation of a solution of a univalent electrolyte, A., 1033.
- P.D. in the double layer at the surface of a simple electrolyte and of pure water, A., 1144.
- Buehler, C. A., and Heap, A. G., molecular organic compounds. I. Molecular organic compounds of *m*-dinitrobenzene, 2:4-dinitrotoluene, and 2:4-dinitrophenol, A., 141.
- Buehrer, T. F., and Roseveare, W. E., free energy of auric oxide as determined from measurements of the gold-auric oxide electrode, A., 941.
- Buehrer, T. F., and Schupp, O. E., jun., reaction between elementary phosphorus and potassium iodate and its utilisation in the volumetric determination of phosphorus, A., 222.
- Buehrer, T. F., Wartman, F. S., and Nugent, R. L., attempt to prepare aurous oxide, and the potential of the gold-aurous oxide electrode, A., 629.
- Buehrer, T. F. See also Roseveare, W. E.
- Buel, H., method and apparatus for forming products from pulpy mass, (P.), B., 165.
- Buel, H., and International Patents Development Co., [reflux] extraction method and apparatus, (P.) B., 768.
- Buell, M. V., and Perkins, M. E., guanine nucleotide, A., 581.
- 6-amino-2-oxypurine (oxypurine) [in blood], A., 584.
- Bülow, H. See Biltz, H.
- Buerger, C. B., and Gulf Refining Co., conversion of higher-boiling hydrocarbons into lower-boiling petroleum hydrocarbons, (P.), B., 357.
- apparatus for condensing oils, (P.), B., 386.
- Bürger, K. See Wiessmann, H.
- Bürkert, H. See Schmidt, Julius.
- Bürki, F., development of silver halide-gelatin emulsions, B., 925.
- Bürklin, E. See Houdremont, E.
- Büsem, W., blood-fat variations after iodine administration to rabbits, A., 1219.
- Bütefsch. See Bodenstein, M.
- Büttner, H. E., action of the sympathetic system on the carbohydrate metabolism of muscle, A., 170.
- Büttner, M., burning cement, etc., (P.), B., 333.
- Büttner-Werke Akt.-Ges., and Kleinmann, F., decomposition of aluminous material, (P.), B., 653.
- Büttner-Werke Akt.-Ges. See also Kleinmann, F.
- Buffalo Foundry & Machine Co., Inc. See Van Marie, D. J.
- Buffat, A. See Marie, C.
- Buffington, R. M. See Glaque, W. F.
- Buggisch, H. See Schleede, A.
- Buhrig, W. H. F. See International Yeast Co., Ltd.

- Buhtz, *E.*, carrying out chemical reactions or physical processes, (P.), B., 465*.
- Buikov, *K. M.*, and Fursikov, *D. S.*, activation of pancreatic lipase, A., 697.
- Bulger, *H. A.* See Peters, *J. P.*
- Bulkley, *R.* See Herschel, *W. H.*
- Bull, *A. W.* See Dorr, *J. V. N.*
- Bull, *H. C.*, composition of chalky deposits on the shells of *Ostrea edulis*, A., 788.
- Bullard, *R. H.*, and Robinson, *W. B.*, phenylmethylstannanes, A., 685.
- Bulle, *G.*, cooling devices for the Siemens-Martin furnace, B., 142.
- Bullen, *F. J.* See Chopra, *N. D.*
- Bullmann, *P.* See Auwers, *K. von.*
- Bunbury, *H. M.*, and British Dyestuffs Corporation, Ltd., preparation of aminodianthrimides, (P.), B., 183*.
- Bunbury, *H. M.* See also British Dyestuffs Corporation.
- Bunce, *E. H.* See New Jersey Zinc Co.
- Bunge, *C.*, determination of the sand content of machine grease, B., 209.
- liquid-air blasting explosives, B., 716.
- Bunge, *F. C.*, and Forschungsinstitut f. Bergwerks- & Sprengstoffchemie sow. verw. Geb., preparation of ink [from crude-tar extracts], (P.), B., 197.
- Bunker, *H. J.* See Thaysen, *A. C.*
- Bunker, *J. W. M.*, and American Protein Corporation, production of an edible protein product, (P.), B., 504.
- Bunn, *C. W.* See Bowen, *E. J.*
- Bunte, *K.*, experiments on complete gasification, B., 545.
- Buntin, *A. P.* See Dumanski, *A. V.*
- Bunting, *E. N.*, manufacture of granular carbon, (P.), B., 931.
- Bunting, *S. A. S.*, coal pulverisers, (P.), B., 696.
- Buntzen, *S.* See Pontoppidan, *C.*
- Bunyea, *H.*, adaptation of the bactericidal action of chloroform to the preparation of bacterins, B., 888.
- Burbridge, *P. W.*, and Macky, *W. A.*, physical properties of kauri gum, B., 661.
- Burbridge, *W. N.*, rubber softeners: their influence on ageing, B., 149.
- Burchartz, *H.*, and Saenger, *G.*, blast-furnace slag as ballast, B., 843.
- Burd, *J. S.* See Ramage, *W. D.*
- Burdekin, *J. T.*, caking power of coal, B., 288.
- Burdette, *R. C.* See Griffin, *E. L.*
- Burdick, *C. L.*, and Guggenheim Bros., metallurgical process, (P.), B., 80.
- Burdick, *C. L.* See also Guggenheim, *D.*
- Burdon, *R. S.*, and Oliphant, *M. L.*, surface tension of mercury and the action of aqueous solutions on a mercury surface, A., 618.
- Burdon, *R. S.* See also Oliphant, *M. L.*
- Bures, *E.*, chloro- and bromo-derivatives of *o*- and *m*-cresol, A., 554, 763.
- Burford, *W. A.*, and Baader, *W.*, determination of graphite and combined carbon in cast iron, B., 111.
- Burg, *W. E.* See Berlingozzi, *S.*
- Burgarth, *H.*, valency theory and the electrical resistance of metals, A., 94.
- Burge, *W. E.*, and Wickwire, *G. C.*, decrease in sugar metabolism and destruction of insulin by ultra-violet irradiation, A., 594.
- Burge, *W. E.*, Wickwire, *G. C.*, Estes, *A. M.*, and Williams, *M.*, effect of amino-acids on sugar metabolism with respect to their optical activity, A., 990.
- Burge, *W. E.*, and Williams, *M.*, utilisation of dextrose, laevulose, and galactose by animal and plant cells, and the antagonistic action of insulin to thyroxine, A., 994.
- Burger, *A.* See Späth, *E.*
- Burger, *H. C.*, and Cittert, *P. H. van*, true and apparent width of spectral lines, A., 909.
- Burger, *H. C.* See also Ornstein, *L. S.*
- Burger, *P.*, galvanic cell having an electrode consisting of manganese dioxide and acetylene soot, B., 944.
- Burgers, *W. G.*, X-ray investigation of optically anomalous crystals of racemic potassium chlorosulphoacetate, A., 401.
- molecular arrangement of uniaxial optically active crystals, A., 1126.
- Burgess, *A. H.*, drying of hops; Institute of Brewing Research Scheme; report of the fifth season's work at the experimental oast, 1925, B., 199.
- manuring experiments on hops, 1925, B., 307.
- Burgess, *A. M.* See Eberlin, *L. W.*
- Burgess, *C. F.*, Laboratories, Inc., Brown, *B. K.*, Storey, *O. W.*, Silver, *C. A.*, and Collinson, *G. T.*, method of producing oxidised carbon [graphitic oxide], (P.), B., 17.
- Burgess, *H.*, co-ordination compounds of beryllium and *m*- and *p*-nitrobenzoylacetone, A., 971.
- Burgess, *M. L.*, and Marietta Manufacturing Co., colouring glassware, (P.), B., 221.
- Burgess, *P. S.*, sodium hydroxide *versus* sodium carbonate [in soils], B., 886.
- Burgess, *P. S.*, and Breazeale, *J. F.*, determination of replaceable bases in soils, B., 21.
- determination of the replaceable bases of soils, in either presence or absence of alkali salts, B., 637.
- Burgess, *P. S.*, and McGee, *W. T.*, zeolite formation in soils, B., 588.
- Burgess, *P. S.* See also Breazeale, *J. F.*
- Burgess, *W. M.* See Krauss, *C. A.*
- Burgess Battery Co., and Schulte, *W. B.*, dry battery, (P.), B., 339.
- Burgess Laboratories, Inc., *C. F.*, and Brown, *B. K.*, [depolariser for] galvanic cells, (P.), B., 786.
- galvanic cell, (P.), B., 787*.
- Burgess Laboratories, Inc., *C. F.*, Brown, *B. K.*, Storey, *O. W.*, and Collinson, *G. T.*, electrochemical production of solid oxides of carbon [graphitic oxide], (P.), B., 787*.
- Burgess, Ledward & Co., Ltd., Scholefield, *F.*, and Denver, *N.*, obtaining lustre and matt effects on fabrics composed wholly or in part of viscose in the sulphur state, (P.), B., 72.
- Burget, *G. E.*, and Visscher, *M. B.*, p_H of the blood and the response of the vascular system to adrenaline, A., 795.
- Burgh, *A. M. van den*, examination of raw milk by the small plate method, B., 425.
- Burghard, *F.* See Kindler, *K.*
- Burgherr, *K.*, optical sensitisation with dyes, A., 1041.
- Burk, *D.*, free energy of nitrogen fixation by living forms, A., 488.
- photosynthesis with malachite-green, A., 947.
- photosynthesis with ammonia, A., 1040.
- Burk, *H.*, manuring in drills, B., 453.
- Burk, *N. F.* See Greenberg, *D. M.*
- Burk, *R. E.*, thermal decomposition of ammonia on the surface of a molybdenum wire, A., 426.
- gauge for measurement of high vacua, A., 438.
- Burke, *A. D.* See Heller, *V. G.*
- Burke, *C. E.*, and Du Pont de Nemours & Co., *E. J.*, stabilisation of plastics, (P.), B., 473.
- Burke, *C. E.*, and Du Pont Viscoloid Co., fireproofed [cellulose ester] product, (P.), B., 775.
- Burke, *S. P.*, and Caplan, *S.*, cause of the red colour of aqueous extracts and emulsions of low-temperature tars, B., 246.
- Burke, *S. P.*, and McKee, *R. H.*, manufacture of methyl alcohol, (P.), B., 28.
- Burke, *S. P.*, and Parry, *V. F.*, heat of distillation of coal, B., 178.
- Burkhardt, *H.* See Berl, *E.*
- Burkheiser, *W.*, recovery of ammonia and sulphur from coal distillation gases by the Burkheiser process, B., 834.
- Burks, *H. G.* See Keyes, *F. G.*
- Burkser, *E.*, Brun, *I.*, and Bronstein, *K.*, bio-radioactivity of plants, A., 383.
- Burkser, *E. S.*, and Rublov, *S. G.*, micro-chemical determination of rubidium, A., 1161.
- Burkser, *E. S.*, Rublov, *S. G.*, and Scharnovsky, *A. M.*, triple iodides of rubidium and gold with other metals, A., 1155.
- Burky, *E. L.* See Woods, *A. C.*
- Burlage, *H. M.*, and Lynn, *E. V.*, *Asarum caudatum*, A., 799.
- Burlingham, *J. H.*, and Texas Co., distilling apparatus, (P.), B., 433.
- Burlot, *E.*, specific heats of gases at high temperatures and pressures, A., 301.
- Burmah Oil Co., and Worsley, *R. R. le G.*, purification of mineral oil distillates and of paraffin wax, (P.), B., 35.
- Burmeister, *E.* See Traube, *W.*
- Burmeister, *H.*, production of moulded articles and plastic materials, B., 823.

- Burn, J. F., and Lancaster, J. S., rotary mixing machine, (P.), B., 432.
- Burn, J. H., and Ellis, J. M., biological assay of the specific alkaloid of ergot, B., 427.
- Burnett, D., relation between refractive index and density, A., 1126.
- Burnett, J. M. See Haddon, W.
- Burnett, W. B. See Grasselli Chemical Co.
- Burney, C. D. See Broadway Trust Co., Ltd.
- Burnham Chemical Co. See Gauger, A. W.
- Burns, A. C., deterioration of cotton during damp storage, B., 370.
- Burns, F. H. See Riddle, O.
- Burns, H. S. See Lundy, W. T.
- Burns, K. See Meggers, W. F.
- Burns, R. See Baird, W.
- Burr, G. O. See Anderson, R. J.
- Burr, H. O. See Dunlop Rubber Co., Ltd.
- Burrage, A. C., vulcanisation process and product, (P.), B., 948.
- Burrage, L. J., complex salts of lead iodide and alkali halides, A., 326.
- Burrage, L. J. See also Allmand, A. J.
- Burrell, G. A. See Koch, G. T.
- Burrell, R. C., deficiencies of nitrogen metabolism in plants, A., 596.
- Burroughs, C. W., heat-treatment of spent bone-char and similar materials [used in sugar refining], (P.), B., 921.
- Burrows, G. H., and Lucarini, C., equilibrium between benzene, hydrogen, and cyclohexane, A., 628.
- Burschtein, R. H., adsorption method of titration, A., 1159.
- Bursian, V., calculation of the mean value in the electron theory of Lorentz, A., 710.
- Bursill, A., and Electroflo Meters Co., Ltd., electrical resistance thermometer, (P.), B., 561.
- Burstall, F. H. See Morgan, G. T.
- Burstall, F. W., and Ellis, S. J., plant for the production of carbon monoxide, B., 139.
- Burstein, R., determination of lead and ferrocyanide ions by Fajans' method, A., 847.
- Burstein, R. See also Rabinovitch, A. J.
- Burt, F. P. See Francis, M.
- Burt, K. L. See Robinson, C. S.
- Burt, R. C., sodium voltameter, A., 1049.
- Burtis, M. P. See Quinn, E. J.
- Burton, D., batch B.14 hide powder, B., 757.
- determination of total sulphur dioxide set free by acid from a bleaching extract (Report of Committee of Society of Leather Trades' Chemists), B., 757.
- Burton, D., and Charlton, H., determination of sulphur dioxide in bleaching [tanning] extracts, B., 20.
- Burton, D., and Haslam, J. K., water analysis, B., 382.
- Burton, D. See also Atkin, W. R.
- Burton, F. F., Helmholtz double layer related to ions and charged particles, A., 1033.
- Burton, G. W. See Sherman, H. C.
- Burton, H., and Gibson, C. S., derivatives of 10-chloro-5:10-dihydrophenarsazine. IV. Carboxy-derivatives, A., 264.
- derivatives of o-aminophenylarsinic acid, A., 1098.
- 9-methylcarbazole-3-arsinic acid and its reduction products, A., 1098.
- Burton, J. Q. See McCandless, J. M.
- Burton, W. A. See Langwell, H.
- Bury, G. R., calculation of activities from f. p., A., 113.
- Bury, G. R. See also Hamer, W. E., and Jones, E. R.
- Bury, E., treatment of zinc waste, B., 942.
- Busch, M. [with Becker, A.], action of cyclohexyl bromide on arylhydrazines. II. Decomposition of phenylhydrazine in presence of its salts, A., 761.
- Busch, M., and Gebelein, F., cyclohexylaniline, A., 553.
- Busch, M., and Haase, G., action of bromocyclohexane on arylhydrazines, A., 554.
- Busch, M., and Linsenmeier, K., cyclohexylhydrazine, A., 455.
- Busch, W., application of electrometric titration to the determination of the solubility of sparingly soluble oxides, A., 535.
- Buschlinger, aluminium as constructional material in the organic chemical industry, B., 143, 336.
- Bush, (Miss) F., colour of silver chromate, A., 713.
- Bushmakina, J. N. See Joukov, J. J.
- Buss, G. See Simon, A.
- Busse, W., detection of unimolecular ions in air and the forces between ions and gas molecules, A., 4, 1119.
- ionisation by the slow oxidation of phosphorus, A., 4.
- cluster-formation in gas ions, A., 392.
- nature of phosphorus ionisation. I. and II., A., 633, 708.
- Busse, W. F., and Daniels, F., decomposition of nitrogen pentoxide in presence of foreign gases, A., 635.
- Buston, H. W. See Schryver, S. B.
- Buswell, A. M., and Neave, S. L., nitrogen losses through denitrification [in soils], B., 950.
- Buswell, A. M. See also Neave, S. L.
- Butcher, R. W., Pentelow, F. T. K., and Woodley, J. W. A., diurnal variation of the gaseous constituents of river waters, A., 899.
- Butescu, D., and Atanasiu, V., presence of helium in gases from petroleum wells, A., 129.
- occurrence of helium in oil-well gases, B., 580.
- Butkevitch, V., acids as intermediate stages in the oxidation of sugars by fungi, A., 280.
- acid formation by fungi, A., 382.
- Butkovski, K., utilisation of waste in the fat-hardening industry, B., 530.
- Butler, A. Q. See Baxter, G. P.
- Butler, C. See British Dyestuffs Corporation, Ltd.
- Butler, E. A., and Colloidal Equipment Corporation, apparatus for defloculating and emulsifying, (P.), B., 433.
- Butler, H. P., manufacture of liquefied crude rubber, (P.), B., 757.
- Butler, J. A. V., equilibrium of heterogeneous systems including electrolytes. II. Equilibrium at interfaces and the theory of electrocapillarity, A., 112.
- electric potentials of ions in salt solutions, A., 316.
- Butler, J. B. See Nesbitt, S. G. M.
- Butler, K. H., and McIntosh, D., mol. wt. determinations and solubilities in liquid chlorine, A., 828.
- Butler, T. H., Popham, F. J. W., Mann, J. C., and Robinson, H. W., production of liquid fuel mixtures, (P.), B., 99.
- Butler, W., and Coste, J. H., modern methods of sewage disposal, B., 381.
- Butterfield, W. J. A., gas industry: past, present, and future, B., 864.
- Butterworth, E., continuous electro-conductivity titration, A., 1045.
- Buttles, J. See Thalheimer, W.
- Buytendyk, F. J. J., Brinkman, R., and Mook, H. W., system carbonic acid-carbon dioxide-water. I. Determination of the true dissociation constant of carbonic acid, A., 729.
- Buzágh, A. von, theory of peptisation. I. Dependence of solubility on the amount of colloid, A., 310.
- Buznea, D., and Cernatescu, R., detection of nitric acid and nitrates, A., 534.
- By-Products Recovery Co. See Resines, F. J.
- Byrnes, C. P., manufacture of solvents [from petroleum hydrocarbons], (P.), B., 92.
- Byron, F. E. See Blair, R. W.
- Bywaters, H. W., Maggs, F. T., and Pool, C. J., determination of illipé butter in chocolate, B., 614.

C.

C. & C. Developing Co. See Rowlands, H. R.

- Cabannes, J., systematic errors introduced into the measurement of the depolarisation of light diffused by gases by stray light; study of some organic vapours, A., 8.
- molecular diffusion of light in liquids; experimental test of theoretical formulae, A., 921.
- Cabannes, J., and Daure, P., absolute measurement of the intensity of light diffused by benzene in the liquid state, A., 295.
- Cabannes, J., and Dufay, J., variations in the ozone content of the atmosphere, A., 1164.
- Cable, D. E., McKee, R. H., and Simmons, R. H., soda pulp investigation. II. Yield and quality of pulp obtained from the birches and maples, B., 327.
- Cabot, S., polymerisation of oils, (P.), B., 531.
- manufacture of colloiddally dispersed material, (P.), B., 800.
- Cabrera, E., theory of paramagnetism, A., 926.

- Cabrera, B., and Dupérier, A., paramagnetism of palladium and platinum groups, A., 926.
- Caccia, P., direct blue disazo-dyestuff, (P.), B., 135.
manufacture of a diuretic product, (P.), B., 460.
preparation of concentrated vitamin-B, (P.), B., 540.
- Cachat, C. See Delépine, M.
- Cadenbach, G. See Fredenhagen, K.
- Cadgene, E., and Rivat, G., production of weighted artificial silk, (P.), B., 295.
- Cadre, P., manufacture of cement, (P.), B., 221.
- Cadwell, S. M., and Naugatuck Chemical Co., manufacture of a deterioration retarder for rubber, (P.), B., 452*.
preparing a reaction product of acetaldehyde and aniline, (P.), B., 460*.
process for treating latex and products obtained thereby, (P.), B., 824.
- Cadwell, S. M. See also Naugatuck Chemical Co.
- Cady, H. P. See Groening, A. A.
- Cady, L. C. See Cone, W. H.
- Caeser, D., electrolytic preparation of *p*-aminophenol, B., 849.
- Caglioti, V., microchemical reactions of beryllium, A., 1046.
zeolites from the leucites near Rome; gismondite from Capo di Bove and pseudophillipsite from Acquacetosa, A., 1050.
chemical composition of herschellite from Acicastello, A., 1050.
- Caglioti, V., and Stolfi, A., double sulphates of bismuth and the alkali metals. I. Sulphates of bismuth and potassium, A., 951.
- Caglioti, V. See also Zambonini, F.
- Cagniard, L., variation of dielectric constant of benzene with pressure, A., 7.
- Cahill, A. G. See British Separators, Ltd.
- Cahill, E. F. See Hoover, W. C.
- Cahn, R. S. See Braun, J. von.
- Cahn, T. See Bonot, A.
- Caille, A., fixing basic dyes on vegetable parchment, B., 475.
- Cain, J. R. See Shackelford, E. J.
- Cain, R. See Lynn, E. V.
- Caines, C. M., identification and determination of morphine in compound tincture of camphor, B., 570.
- Caird, M. N. See Grimble, F.
- Cajori, P. A., Crouter, V., and Pemberton, R., physiological effect of massage, A., 375.
- Calame, action of potash end-liquors and mother-liquors on cements, B., 412.
- Calbeck, J. H., application of the statistical method in testing paints of durability, B., 83.
- Calbeck, J. H., and Harner, H. R., particle size and distribution by sedimentation, B., 127.
- Calbeck, J. H. See also Morgan, H. T.
- Calco Chemical Co. See Crossley, M. L.
- Caldwell, J. S. See Culpepper, C. W.
- Caldwell, L., and Celite Co., process of treating liquids, (P.), B., 170.
- Caldwell, L. See also Endres, H. A.
- Caldwell, M. L. See Sherman, H. C.
- Calico Printers' Association, Ltd., Lantz, L. A., and Keyworth, C. M., treatment of cotton fabrics containing artificial silk, (P.), B., 746.
- Calico Printers' Association, Ltd., and Swallow, A., decorative printing of textile fabrics, (P.), B., 71.
- Calico Printers' Association, Ltd., and Whinfield, J. R., ornamentation of artificial silk fabrics, (P.), B., 776.
- Calico Printers' Association, Ltd., Whinfield, J. R., and Levin, C., production of printed and dyed effects on artificial silk fabrics, B., 964.
- California Cyanide Co., Inc., and Metzger, F. J., manufacture of cyanides of alkali-forming metals, (P.), B., 556*.
- California Cyanide Co., Inc. See also Olberg, W. E., and Poin-dexter, R. W., jun.
- Calingaert, G., and General Motors Corporation, production of alkyl [tetraethyl] compound of lead, (P.), B., 428.
- Calingaert, G., and Hitchcock, L. B., application of phase rule to calculation of liquid and vapour compositions in binary systems; deviations from Raoult's law for hydrocarbon mixtures, A., 417.
- Callan, T., determination of carbon dioxide in carbonates [in dyestuffs], B., 359.
- Callebaut, C., and De Blicquy, J., [machines for] dyeing silk or other material [in the form of skeins], (P.), B., 9.
- Callebaut, C., and De Blicquy, J., heating of liquids, (P.), B., 319.
[vat for] dyeing knitted, woven, or the like articles, (P.), B., 329.
- Callendar, H. L., dopes and detonation, B., 272.
- Callendar, L. H., influence of boundary films on corrosive action, B., 724.
- Callier, A. See Vavon, G.
- Callis, C. C. See Kraus, C. A.
- Callow, E. H., presence of formaldehyde in wood smoke and in smoked foodstuffs, B., 615.
- Callow, E. H., and Hele, T. S., sulphur metabolism of the dog. V. Toxic action of mercapturic acids, A., 695.
- Calmon, A., acid-resistance of asbestos, B., 439.
- Calò, A. See Mazza, F. P., and Migliacci, D.
- Calsow, G., relation between kaolin and clays, A., 38.
- Calsow, G. See also Linck, G.
- Calvert, W. C., preparation of synthetic rubber hydrocarbon [dimethylbutadiene], A., 130.
- Calvert, W. C. See also Bruson, H. A.
- Calvery, H. O., action of sodium carbonate on yeast-nucleic acid, A., 581.
chemistry of tea leaves. II. Isolation of guanine nucleotide and cytosine nucleotide, A., 597.
uricase, A., 699.
- Calvery, H. O., and Jones, W., nitrogenous groups of nucleic acid, A., 686.
- Calvery, H. O., and Remsen, D. B., nucleotides of triticonucleic acid, A., 891.
- Camack, J. G. See Austin, J. H.
- Cambi, L., colour reactions of nitroprusside, A., 346.
diazo-hydroxides, A., 1063.
- Cambi, L., and Szegő, L., constitution and absorption spectra of the nitrososulphides of iron, A., 185.
absorption spectra of complex ferro- and ferri-cyanides in aqueous solution, A., 809.
spectroscopic studies on the complex cyanides of iron. II. The reaction between nitroprussides and alkalis, A., 917.
- Cameron, A. M., and Dow, W. T., application of Ridsdale's modification of Pemberton's method for the volumetric determination of phosphoric anhydride to fertilisers, B., 919.
- Cameron, A. T., and Carmichael, J., relative activity of thyroid fractions and derivatives, A., 486.
- Cameron, A. T., and Foster, M. E., pernicious anemia. III. Contrast of the chloride contents of corpuscles and plasma in pernicious anemia and other conditions, A., 1105.
- Cameron, A. T., and Williamson, J. E., calcium content of blood-serum of rat, A., 1102.
- Cameron, A. T. See also Ingvaldsen, T.
- Cameron, C. N., action of benzylamine on dextrose in acetic acid. III, A., 858.
- Cameron, C. N. See also Glattfeld, J. W. E.
- Cameron, J. L. See Fry, H. S.
- Cameron, W. H. B., band spectra associated with silicon, A., 184.
- Cammell, Laird & Co., Allan, J. McN., and Hague, A. P., alloy steel, (P.), B., 819.
- Cammen, L., iron alloys, (P.), B., 114.
- Campa, M., influence of X-rays on the crystallisation of antimony, A., 1130.
- Campanile, S., seasonal variation in inorganic nitrogen compounds in the water of Lake Castelgandolfo, A., 850.
- Campardou, J., preparation of hydrocarbons by reduction of organic substances; use of carbon and carbon monoxide, A., 440.
- Campbell, A. J. See Moore, B. J.
- Campbell, A. N., conductivity of phosphoric acid solutions at 0°, A., 113.
- Campbell, A. W. See Coleman, G. H.
- Campbell, C., and Woodhead, D. W., ignition of gases by an explosion wave. I. Carbon monoxide and hydrogen mixtures, A., 115.
striated photographic records of explosion waves, A., 833.
- Campbell, C. H., and American Glue Co., reclaiming rubber; mixing a soluble filler with rubber, (P.), B., 790.
- Campbell, D. See Geiling, E. M. K.
- Campbell, D. F., electric furnaces in non-ferrous metallurgy, B., 255.
heating metals by electricity, (P.), B., 370.
high-frequency induction melting, B., 781.
- Campbell, F. H. See Lloyd, G. F.

- Campbell, G., regulation of liquid level in a pressure vessel, (P.), B., 66*.
- Campbell, G. See also Harrison, H. T.
- Campbell, J., composition prepared from bitumen and rubber, (P.), B., 149.
- Campbell, J. A., prolonged alterations of oxygen pressure in the inspired air with special reference to tissue oxygen tension, tissue carbon dioxide tension, and haemoglobin, A., 167.
- Campbell, N. R. See General Electric Co., Ltd.
- Campbell, P. A., and General Electric Co., incandescence lamp, (P.), B., 17.
- Campbell, T. D., apparatus for the purification of zinc solutions, (P.), B., 11.
- Campbell, W. G. See Hawley, L. F.
- Campbell, W. H., apparatus for separating solids from liquids, (P.), B., 432.
- Campbell, W. R., and Markowitz, J., preferential utilisation of carbohydrates in diabetes, A., 274.
- metabolism of dihydroxyacetone in pancreatic diabetes, A., 693.
- Campbell, W. R. See also Markowitz, J.
- Campbell-Cooney Patents Co. See Cooney, R. K.
- Campredon, R. See Carrière, J. F.
- Camuset, C., diffusion plant for making extracts from sugar beet, sugar cane, etc., (P.), B., 664.
- Canada Carbide Co., dissociation of carbonaceous gases or vapours, (P.), B., 740.
- Canada Carbide Co., and Wisdom, S. A., manufacture of lamp-black; decomposition of carbonaceous gases, (P.), B., 210.
- Canada Carbide Co. See also Freeman, H.
- Canadian American Finance & Trading Co., Ltd. See Benton, M.
- Canadian Electro Products Co., Ltd., Matheson, H. W., and Blaikie, K. G., manufacture of lactic acid esters, (P.), B., 796.
- manufacture of esters of α -hydroxy-acids, (P.), B., 796.
- Canadian Electro Products Co., Ltd. See also Skirrow, F. W.
- Canal, H. See André, E.
- Canals, E., and Mousseron, M., distilled water in biology, A., 600.
- Canan, M. C. See Berardi, J. B.
- Canavan, E. J. See Barrett Co.
- Candee & Co., L., finishing rubber articles, (P.), B., 757.
- Candlish, C. G., recent developments in the dyeing of Celanese [cellulose acetate silk] mixtures, B., 215.
- Cane, E., calorimetric researches on some salts, A., 1018.
- Canfield, J. J., and Hayes, A., decomposition of hydrogen bromide by the silent electric discharge, A., 515.
- Cannan, R. K., echinochrome, A., 271.
- Cannavò, L., determination of the amino-nitrogen of the blood, A., 585.
- fatty acids of the spleen after castration and their quantitative variation during aseptic autolysis, A., 587.
- action of insulin on the gastric secretion of diabetics, A., 594.
- Cannegieter, D., determination of transition points with the aid of a thermocouple, A., 818.
- Canneri, G., heterotriphosphates. III. Tungstovanadophosphates, A., 33.
- double citrates of quadrivalent vanadium, A., 42, 228.
- heterotri-acids and heterotri-salts. IV., A., 220.
- Cannon Iron Founders, Ltd., and Hawthorne, H. S., atmospheric gas burners, (P.), B., 135*.
- Cano, V., apparatus for heating, cooling, or drying materials, (P.), B., 736*.
- Canon, F. A., Andrews, C. E., and Selden Co., process of carrying on catalytic reactions, (P.), B., 175.
- Cantarow, A., Dodek, S. M., and Gordon, B., calcium in jaundice with special reference to the effect of parathyroid extract on the distribution of calcium, A., 988.
- Cantarow, A. See also Caven, W. R., and Jones, H. W.
- Cantelo, R. C., methane equilibrium. I-IV., A., 20, 204, 321.
- theory of the absorption tower, B., 1.
- Cantelo, R. C., Simmons, C. W., Giles, E. M., and Brill, F. A., tower absorption coefficients, B., 799.
- Cantoni, O., titrations with arsenious acid, B., 10.
- Cantor, M. See I. G. Farbenind. A-G.
- Cantzler, A., and Rothschild, S., determination of water in organic substances by means of calcium carbide, B., 795.
- Canzler, H., alloy for welding copper, (P.), B., 169.
- Capato, E. See Ruzicka, L.
- Capicotto, J. V., and Dubilier Condenser Corporation, welding copper and aluminium, (P.), B., 753.
- Caplan, S. See Burke, S. P., Combustion Utilities Corporation; Wertaur, M. von, and Willoek, H. H.
- Cappelli, G., wood light for detecting soya bean flour when mixed with wheat flour, B., 667.
- Capra, A. M., filter press, (P.), B., 928.
- Carbide & Carbon Chemicals Corporation, and Curme, G. O., jun., manufacture of glycols, (P.), B., 733.
- Carbide & Carbon Chemicals Corporation, and Davidson, J. G., glycol ethers and cellulose ester solvents, (P.), B., 428.
- Carbide & Carbon Chemicals Corporation. See also Davidson, J. G., Ray, A. B., and Young, C. O.
- Carbo-Hydrogen Co. of America. See Rose, J. R.
- Carboncini, G. See Parisi, E.
- Carborundum Co., manufacture of refractory articles, (P.), B., 300.
- heat exchangers, (P.), B., 320.
- [refractory heat screen for] furnaces, (P.), B., 351.
- Carborundum Co., and Greenwood, C. H., dryer, (P.), B., 432.
- Carborundum Co., and Hawke, C. E., metallurgical furnaces, (P.), B., 753.
- Cardoso, E., apparatus for the purification of gases and the determination of vapour pressures, A., 224.
- thermal properties of gases. IV. Apparatus for determination of densities of co-existing vapour and liquid phases, A., 335.
- Cardoso, E., and Fiorentino, U., thermal properties of gases. III. Critical constants and vapour pressure of sulphur dioxide, A., 302.
- Cardoso, E., and Sorrentino, E., thermal properties of gases. V. Densities of co-existing phases of sulphur dioxide, A., 335.
- Careas, A., and Rideal, E. K., combination of nitrogen and hydrogen activated by electrons, A., 943.
- Cario, G., and Lochte-Holtgreven, W., light source for exciting resonance spectra, A., 489.
- Carius, C. See Zsigmondy, R.
- Carline, J. C., means of pulverising and separating all kinds of cereals, minerals, etc., (P.), B., 287.
- Carlsohn, H., determinations of mol. wt. of sparingly soluble substances in camphor, A., 300.
- Carlsohn, H. See also Hantzsch, A.
- Carlson, R. See Pearce, W. T.
- Carlsson, C. O., regeneration of vulcanised rubber, (P.), B., 757.
- Carman, A. P., and Hubbard, K. H., determination of the dielectric constant of air by a discharge method, A., 293.
- Carmichael, F., oxidation of sulphides, A., 336.
- Carmichael, J. See Cameron, A. T.
- Carmichael, T., modern carbonising economics exemplified by results and working costs at Portsmouth Gas Works, B., 672.
- Carnation Milk Products Co. See Grindrod, G.
- Carnegie, A. J. See Peace, G.
- Carney, E. S. See Kraus, C. A.
- Carnochan, R. K. See Parsons, C. S.
- Caro, R. J. See Larison, E. L.
- Carobbi, G., noteworthy Vesuvian sublimates, A., 38, 129.
- ferrimolybdate from Bivongi (Calabria), A., 1050.
- pyromorphite from Leadhills, Lanarkshire, Scotland, and mimetite from Santa Eulalia Chihuahua, Mexico, A., 1164.
- Carobbi, G., and Restaino, S., pyromorphites of Braubach (Nassau), A., 956.
- Carobbi, G. See also Zambonini, F.
- Carothers, W. H., reactivities of some tertiary bromides, A., 148.
- Carpenter, H. C. H., [chromium plating and resistance to corrosion], B., 703.
- Carpenter, H. C. H., and Tamura, S., production of large copper crystals, A., 10.
- formation of twinned metallic crystals, A., 10, 191.
- Carpenter, J. A., composition of petroleum (kerosene and other) fractions, with the standardisation of miscibility and optical tests, B., 673.
- Carpenter, J. W., and Edison Swan Electric Co., Ltd., electric cells, (P.), B., 727.
- Carpenter, T. M., human metabolism with enemata of alcohol, dextrose, and levulose, A., 71.
- effect of fasting on the urine of steers, A., 1108.
- Carpenter, T. M., and Fox, E. L., absence of stratification and rapidity of mixing of carbon dioxide in air samples, A., 846.
- Carpentier, M. G., and Brigaudet, M. M., modifications of the urinary deposit after muscular exercise, A., 790.
- Carpentier, P. See Eseourrou, R.

- Carr, F. H., chemistry in the progress of medicine, B., 668.
 Carr, R. H. See Brewer, P. H.
 Carr, W. M., Toogood, H. J., and Dempster, R., & Sons, Ltd., retort furnaces [for carbonisation of coal], (P.), B., 133.
 Carré, M. H., and Horne, A. S., behaviour of pectic materials in apples and other plant tissues, A., 704.
 Carrel, A., and Baker, L. E., chemical nature of substances required for cell multiplication, A., 170.
 Carrelli, A., paramagnetism of the elements comprised between calcium and zinc, A., 288.
 spinning electron in wave mechanics, A., 394.
 Carrelli, A., and Pringsheim, P., heat of formation of the K₂ molecule, A., 1018.
 Carreras, R. S., manufacture of white lead by electrolysis, (P.), B., 916.
 Carrier, W. H., and Carrier Engineering Corporation, refrigerating apparatus, (P.), B., 129.
 process of refrigeration, (P.), B., 897.
 Carrier, W. H. See also Carrier Engineering Co., Ltd.
 Carrier Engineering Co., Ltd., and Carrier, W. H., refrigeration, (P.), B., 832.
 Carrier Engineering Co., Ltd., and Groom, S. L., drying and separation from gases of soluble and/or condensable vapours and impurities, (P.), B., 512.
 method and device for conditioning gases as regards their temperature and humidity, (P.), B., 801.
 controlling the saturation temperature of gases and apparatus therefor, (P.), B., 863.
 Carrier Engineering Corporation, treatment of hygroscopic materials, (P.), B., 351.
 Carrier Engineering Corporation. See also Carrier, W. H., and Stacey, A. E., *jun.*
 Carrière, E., and Ducasse, determination of the b. p. and condensation curves of mixtures of hydriodic acid and water under a pressure of 746 mm. of mercury, A., 104.
 Carrière, J. F., surface properties of soap solutions; structure of the surface layer, B., 258*.
 detection of linseed oil in soya bean oil, B., 493.
 Carrière, J. F., and Campredon, R., grape seed oil, B., 562.
 Carringer, J. R., and Standard Development Co., continuous distillation of hydrocarbon oils, (P.), B., 900.
 Carringer, J. R. See also Howard, F. A.
 Carroll, B. H., sensitisation for the entire visible spectrum, B., 157.
 Carroll, B. H., and Hubbard, D., photographic emulsion. I. comparison of emulsions made with different bromides, B., 714.
 Carroll, S. J., and Eastman Kodak Co., cellulose acetate composition [film] of low inflammability, (P.), B., 675.
 [non-inflammable] cellulose acetate compositions, (P.), B., 873.
 Carson, C. M., and Goodyear Tire & Rubber Co., method of vulcanising caoutchouc and product obtained thereby, (P.), B., 52.
 Carson, F. T., measurement of the degree of sizing of paper, B., 471.
 Carson, H. Y., cement-lined water mains, B., 718.
 Carson, W. E., production of hydrated lime, (P.), B., 166.
 Carswell, T. S., m. p. of acetylsalicylic acid [acetoxybenzoic acid], A., 663.
 Carter, C. See Applebey, M. P.
 Carter, C. B., and Karpen & Bros., S., production [separation] of hexamethylenetetramine and ammonium chloride, (P.), B., 619.
 manufacture of hexamethylenetetramine, (P.), B., 797.
 Carter, C. L., and Malcolm, J., biochemistry of "mutton bird" oil, A., 691.
 Carter, D. See British Dyestuffs Corporation, Ltd.
 Carter, E. See King, A. S.
 Carter, K. L. See Clark, G. W.
 Carter, N. M. See Clark, R. H., and Shrum, G. M.
 Carter, R. M., separation and analysis of the volatile solvents and thinners of lacquers, B., 119.
 Carter, R. M., and United States Industrial Alcohol Co., manufacture of ester condensation products, (P.), B., 380*.
 Carter, S. R., Lea, F. M., and Robinson, R. A., effect of hydrochloric acid on the electrode potential between mercury and mercurous chloride, A., 941.
 Carter, S. R., and Megson, N. J. L., constitution of certain salts and acids in solution as determined by observations of critical solution temperatures, A., 1020.
 action of hydrogen chloride on methyl alcohol, B., 155.
 Carter, S. R., and Robinson, R. A., normal oxidation-reduction potential of mercury, A., 209.
 oxidation-reduction potentials of mercurous and mercuric chlorides in hydrochloric acid solution, A., 941.
 Carter, S. R. See also Bucknall, W. R.
 Cartier, P. See Riou, P.
 Carver, G. W., production of [wood] paints and stains, (P.), B., 787.
 Carveth, H. R., and Roessler & Hasslach Chemical Co., process of reacting [oxidising] metals with gases, (P.), B., 848.
 Casaburi, V., dyeing of leather, (P.), B., 216.
 action of sodium sulphide solutions in the manufacture of sole leather, B., 948.
 Casale, L., physico-chemical investigation of wines, B., 200.
 apparatus for the electrolysis of water, (P.), B., 449.
 catalytic preparation of alcohols and of other oxygenated organic compounds, (P.), B., 619.
 preparation of mixtures of carbon monoxide and hydrogen from hydrocarbons, (P.), B., 741.
 Casalino, A. See Oddo, G.
 Casazza, E. See Natta, G.
 Case, G. O., porous compounds or compositions formed from gypsum, (P.), B., 333.
 making concrete and products thereof, (P.), B., 484.
 Cash, W. A. See Stephens, F. G. C.
 Cashion, C. G., yellow ink for marking rubber tensile strips, B., 147.
 Cashmore, A. E., constituents of cell-wall of flax fibre, B., 405.
 Caspari, F. See Gelsenkirchener Bergwerks Akt.-Ges. Abt. Schälke.
 Caspari, W. A., crystal structure of quinol. I. and II., A., 10, 612.
 manufacture of oxygenated products from hydrocarbons or oxidisable derivatives of hydrocarbons, (P.), B., 378.
 Casparis, P., and Maeder, R., glucofrangulin, A., 599.
 Casparis, W. R. See Harding, J. S.
 Cassal, A. See Job, A.
 Cassar, H. A., determination of isopropyl alcohol in presence of acetone, and of methylethyl ketone in presence of *sec.*-butyl alcohol, A., 1100.
 Cassel, H., theory of the heat of adsorption of gases, A., 314.
 Cassella & Co., L., production of arsenic acids of aromatic compounds, (P.), B., 125.
 manufacture of new complex auro-sodium thiosulphate solutions, (P.), B., 252.
 manufacture of vat dyes, (P.), B., 212.
 manufacture of new aromatic compounds and dyes therefrom, (P.), B., 325.
 manufacture of solutions containing organic phosphorus and complex gold compounds, (P.), B., 860*.
 Cassella & Co., L., and Haynn, H., dyeing animal fibres in acid baths, (P.), B., 215.
 Casselman, E. J., determination of the drying characteristics of clays, B., 220.
 Cassidy, G. J., Dworkin, S., and Finney, W. H., effect of various sugars (and of adrenaline and pituitrin) in restoring the shivering reflex, A., 175.
 Cassidy, G. J. See also Finney, W. H.
 Cassie, A. M. See Robinson, H. R.
 Caste and Parsy, E., effect of time and tannin on the analytical results, yield, cut, and colour of [sole] leather, B., 260.
 Castele, A. V. See Bourgeois, E.
 Castelli, P. See Crippa, G. B.
 Castille, A., ultra-violet absorption spectra of some substances with two benzene nuclei, A., 186, 608.
 Castille, A., and Gueurden, J., pentenonitriles, A., 961, 1176*.
 Castner-Kellner Alkali Co., Ltd. See Moore, J. W.
 Caswell, R. G., Marshall, E. G., and Du Pont de Nemours & Co.; B. I., manufacture of benzanthrone, (P.), B., 627.
 Catchourine, M. See Orlov, E. I.
 Catlow, B. See Bentley, W. H.
 Cattaneo, D., crystalline lens. II. Modifications of the ultra-microscopic structure of the crystalline lens by salts, alkalis, and acids, A., 894.
 Cattelain, E., purification of *o*-methoxybenzoic acid, A., 358.
 action of iodine in alkaline media on phenylisocrotonic acid: some new mixed anhydride derivatives of benzoylacrylic acid, A., 458.
 Caughey, E. G., and Edgewater Steel Co., rendering iron and steel non-oxidisable, (P.), B., 302.

- Caughlan, *J. H.*, ingredient for printing ink, (P.), B., 305.
- Caulaert, *C. van.* See Dill, *D. B.*, and Henderson, *L. J.*
- Caulkin, *H. A.*, tea-seed oil and its uses as an adulterant of olive oil, B., 608.
- Counce, *A. E.* See Pickard, *R. H.*
- Cauquil, (*Mlle.*) *G.*, solubility of gases in cyclohexanol, A., 303.
- viscosity and geometrical isomerism, A., 616.
- Cavanagh, *B.*, [absolute] potentiometric titration, A., 1045.
- Cave, *H. M.*, and Gray, *J. A.*, scattering and absorption of the γ -rays of radium, A., 1004.
- Cave, *H. W.* See Hughes, *J. S.*
- Caven, *R. M.*, and Johnston, *W.*, systems $\text{MnSO}_4\text{--K}_2\text{SO}_4\text{--H}_2\text{O}$ and $\text{MnSO}_4\text{--(NH}_4)_2\text{SO}_4\text{--H}_2\text{O}$ at 0° , and $\text{CuSO}_4\text{--Na}_2\text{SO}_4\text{--H}_2\text{O}$ at 0° , 25° , and 37.5° , A., 1142.
- Caven, *W. R.*, and Cantarow, *A.*, determination of calcium in whole blood, A., 1214.
- Cavett, *E. S.* See Howalt, *W.*
- Cavinato, *A.*, zeolites of the natrolite group, A., 955.
- dehydration of apophyllite, A., 956.
- Cederberg, *I. W.*, apparatus for the catalytic combustion of mixtures of ammonia and oxygen, (P.), B., 364.
- Cekada, *E. B.*, preparation and properties of prothrombin, A., 68.
- Celanese Corporation of America. See Chatham, *R. H.*, Dreyfus, *C.*, and Ellis, *G. H.*
- Celite Co., manufacture of siliceous alkaline-earth compounds, B., 365*.
- Celite Co. See also Caldwell, *L.*, Derleth, *C. P.*, Endres, *H. A.*, Stockton, *M.*, and Thatcher, *H. S.*
- Cellino, *A.*, primary and secondary electric cell, (P.), B., 117*.
- [electrolyte for] electrical primary or secondary cell, (P.), B., 492.
- Cellino, *A.*, and Central Battery Corporation, preparing positive electrodes of storage batteries, (P.), B., 786.
- Cellocilk Co. See Furness, *W. H.*
- Celluloid Co. See Lindsay, *W. G.*
- Centner, *K.* See Foerster, *F.*
- Centnerszwer, *M.*, thickness of the passive surface layer, and the velocity of dissolution of aluminium, A., 214.
- Centnerszwer, *M.*, and Krustinson, *J.*, apparatus for the dynamic determination of dissociation pressures; dissociation of silver carbonate, A., 21.
- Centnerszwer, *M.*, and Straumanis, *M.*, experimental investigation of the theory of local currents, A., 1034.
- Central Alloy Steel Corporation. See Farnsworth, *W. M.*
- Central Battery Corporation. See Cellino, *A.*
- Cerasoli, *E.*, fertiliser, (P.), B., 536.
- Cerasoli, *T.*, gasifying fuels by [a mixture of] oxygen and steam, B., 624.
- Cerezo, *J.* See Täufel, *K.*, and Wieland, *Heinrich.*
- Cerini, *L.*, apparatus for the purification of impure solutions of caustic soda, etc., on osmotic principles, (P.), B., 329, 937.
- Cernatescu, *R.*, and Papañil, *E.*, influence of salts on the solubility of water in phenol, A., 416.
- Cernatescu, *R.*, and Văscăutan, (*Mlle.*) *E.*, use of oxygen in determination of calcium and magnesium, A., 535.
- Cernatescu, *R.* See also Buznea, *D.*
- Cesáro, *G.*, formulæ of certain Vesuvian silicates, A., 336.
- Česká Zbrojovka Ake. Spol. V. Praise, electrolytic coppering of the outer carbon face of lamellar dry batteries having a carbon electrode, (P.), B., 850.
- Ceylon Rubber Research Scheme, variation of Ceylon estate grades of rubber, B., 852.
- Chabanier, *H.*, Lebert, *M.*, and Wahl, *R.*, determination of carbamide in blood, A., 476.
- Chace, *E. M.*, and Church, *C. G.*, effect of ethylene on the composition and colour of fruits, B., 890.
- Chace, *W. M.*, and Chace Valve Co., *W. M.*, bimetallic element, (P.), B., 969.
- Chace Valve Co., *W. M.* See Chace, *W. M.*
- Chadder, *W. J.* See Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd.
- Chadeloid Chemical Co. See Boehmer, *N.*, and Enell, *O. E.*
- Chadwick, *J.* See Rutherford, (*Sir*) *E.*
- Chaffee, *C. S.* See Parks, *G. S.*
- Chahovitch, *X.*, Arnoljevitch, *V.*, and Vichnjitch, (*Mlle.*) *M.*, protein-sugar in different pathological conditions, A., 896.
- Chaikoff, *I. L.*, ketone excretion, D:N ratios, and glycogen contents of liver and muscles of fasting, depancreatised dogs, A., 896.
- Chaikoff, *I. L.*, and Macleod, *J. J. R.*, effect of insulin on respiratory exchange of fed and fasting rabbits, A., 795.
- Chaikoff, *I. L.* See also Barbour, *A. D.*
- Chaise, *E.* See Seyewetz, *A.*
- Chakravarti, *D. N.*, and Dhar, *N. R.*, viscosity measurements of certain sols in presence of electrolytes, A., 200.
- viscosity of some hydrophobic sols and the effect of addition of electrolytes, A., 725.
- Chakravarti, *D. N.*, Ghosh, *S.*, and Dhar, *N. R.*, viscosity and gel-formation of ceric hydroxide sols, A., 934.
- Chakravarti, *D. N.* See also Dhar, *N. R.*
- Chakravarti, *G. C.*, and Saha, *J. M.*, interaction of mercaptans with phthalic anhydride and phthalyl chloride, A., 970.
- Chakravarti, *M. N.*, and Dhar, *N. R.*, adsorption. XIX. Adsorption of electrolytes by manganese dioxide; Freundlich adsorption formula, A., 821.
- Chakravarti, *S. N.*, Haworth, *R. D.*, and Perkin, *W. H.*, jun., synthetical experiments in the isoquinoline group. VII. Synthesis of 3:11-dimethoxyprotoberberinium salts. VIII. Synthesis of protoberberinium salts, A., 1096.
- Chalk, *L. J.*, and Partington, *J. R.*, Besson's supposed phosphorus suboxide, P_2O , A., 950.
- Chalkley, *L.*, jun. See Sullivan, *F. W.*, jun.
- Challenger, *F.*, Subramaniam, *V.*, and Walker, *T. K.*, mechanism of the formation of citric and oxalic acids from sugars by *Aspergillus niger*. I, A., 228.
- formation of organic acids from sugars by *Aspergillus niger*, A., 593.
- Challenger, *F.*, and Wilson, *V. K.*, dicyanates and dibenzoates of triphenylbismuthine and triphenylstibine, A., 267.
- Chalmers, *W.* See Seyer, *W. F.*
- Chalonge, *D.*, and Lambrey, *M.*, structure of the ultra-violet absorption band of ozone, A., 607.
- Chalonge, *D.* See also Lambrey, *M.*
- Chaloupka, *L.*, decoloration of sugar juice by sulphuring before evaporation, B., 920.
- Chambard, *P.*, insoluble constituents of myrobalan extract, B., 636.
- Chambard, *P.* See also Meunier, *L.*
- Chamberlain, *K.*, and Lindsay, *G. A.*, determination of certain outer X-ray energy levels for the elements from antimony (51) to samarium (62), A., 1118.
- Chamberlin, *D. S.*, and Thrun, *W. E.*, flat luminous flames, A., 633.
- Chambers, *A.*, and Rigg, *J. F.*, antimony yellows. I, B., 44.
- Chambers, *R.*, and Pollack, *H.*, microurgical studies in cell physiology. IV. Colorimetric determination of the nuclear and cytoplasmic pH in the starfish egg, A., 696.
- Chambers, *R.* See also Reznikoff, *P.*
- Chamié, (*Mlle.*) *C.*, grouping of atoms of radioactive elements in mercury, A., 605.
- existence of groups of atoms of radio-elements in acid solutions and on surfaces activated by the emanation, A., 1120.
- Chamot, *E. M.*, and Mason, *C. W.*, micro-reactions of the acids of chlorine, bromine, and iodine, A., 744.
- Champion Porcelain Co. See Jeffery, *J. A.*, and Riddle, *F. H.*
- Chan, *S. B.* See Hönigschmid, *O.*
- Chance, *T. M.*, measurement of the specific gravity of liquid and solid mixtures, (P.), B., 176.
- agitating fluid-separating medium, (P.), B., 176.
- coal washing and ore concentration, (P.), B., 244.
- separating materials of different specific gravities, (P.), B., 592*.
- Chance Bros. & Co., Ltd. See Gell, *P. V.*
- Chandler, *W. L.*, and Miller, *E. J.*, colloidal iodine, A., 823.
- Channon, *H. J.*, and Chibnall, *A. C.*, ether-soluble substances of cabbage leaf cytoplasm. IV. Diglyceridephosphoric acid, A., 1227.
- Channon, *H. J.* See also Chibnall, *A. C.*, and Ormandy, *W. R.*
- Chanusot, *P.*, 2-iodofluorene, A., 962.
- Chapas, *G.*, preparation of *p*-dinitrobenzene, A., 348.
- Chapin, *H. C.*, effect of alkalis on wool. II. Effects of sodium and potassium compounds and of temperature, B., 360.
- Chapin, *R. M.*, comparison of deflocculating powers of soaps by the carbon-black test, B., 117.
- Chapin, *W. H.*, water softening as practised at Oberlin, Ohio, B., 894.
- Chaplin, *R.*, adsorption of nitrogen at low pressures by activated charcoal, A., 105.
- Chapman, *A. C.*, compounds of arsenic in marine crustaceans and shell fish, B., 25.

- Chapman, A. C., examination of old cold-stored hops, B., 89.
examination of foodstuffs for preservatives, B., 376.
oil of *Centrophorus granulosus*, B., 945.
- Chapman, A. C., and Linden, H., presence of lead and other metallic impurities in marine crustaceans and shell fish, B., 25.
- Chapman, A. C., and McHugo, C. W., preservative values of green and of kiln-dried hops, B., 455.
- Chapman, A. W., imino-aryl ethers. V. Effect of substitution on the velocity of molecular rearrangement, A., 874.
- Chapman, C. See Macleod, J.
- Chapman, D. L., inter-ionic attraction theory of Debye and Hückel, A., 1028.
- Chapman, E. See British Dyestuffs Corporation, Ltd.
- Chapman, L. M., Greenberg, D. M., and Schmidt, C. L. A., combination between acid dyes and proteins, A., 686.
- Chapman, S. See Topping, J.
- Chapman, V. J., and General Electric Co., electric furnace, (P.), B., 881.
- Chapman, V. J. See also British Thomson-Houston Co., Ltd.
- Chapman, W. R., and Wheeler, R. V., propagation of flame in mixtures of methane and air. V. Movement of the medium in which the flame travels, A., 211.
comparison of processes for cleaning coal, B., 640.
- Chappell, E. L., influence of rust-film thickness upon the rate of corrosion of steels, B., 413.
- Chappell, E. L. See also Russell, R. P., and Speller, F. M.
- Chappell, M. L., Davis, R. F., Moore, M. L., and Contact Filtration Co., manufacture of a clarifying and decolorising agent [for oils], (P.), B., 900.
- Charatz, Z., determination of thiocyanates in the presence of chlorides, sulphides, and cyanides, B., 408.
- Charbonnages & Agglomérés du Bassin de la Tave, apparatus for carbonising and distilling lignite, coal, bituminous shale, etc., (P.), B., 835.
- Charlton, J., and Walta, Z., oxidation of phosphorus vapour at low pressures, A., 122.
- Charles, G., apparatus for dyeing felt or other hats, (P.), B., 841.
- Charleson, J. T., and Goodyear Tire & Rubber Co., manufacturing a rubberised fibre composition, (P.), B., 52.
- Charlton, A. H., and Rowe, T. B., & Co., Ltd., manufacture of soap [filaments], (P.), B., 417.
- Charlton, E. E., and General Electric Co., electric-discharge device [rectifier], (P.), B., 943.
- Charlton, E. E. See also British Thomson-Houston Co., Ltd.
- Charlton, H. See Burton, D.
- Charlton, W., Haworth, W. N., and Hickinbottom, W. J., constitution of the disaccharides. XIV. Melibiose and its relationship to raffinose, A., 859.
- Charonnat, R., solubility in water of 4-dimethylamino-1-phenyl-2:3-dimethyl-5-pyrazolone [pyramidone], A., 829.
- Charrier, G., 1-phenyl- α -naphthatriazolequinone, A., 63.
organic compounds of quinquivalent bismuth, A., 1064.
- Charrier, G., and Beretta, A. [with Pappoff, I.], metallic derivatives of *o*-amino- and *o*-hydroxyazo-compounds, A., 237.
- Charters, J., extraction of tannins and water-soluble [matter] in leather analysis, B., 949.
- Chassevent, L., plaster of Paris, B., 109.
process and apparatus for tempering plaster, (P.), B., 524.
calcium sulphate. II. Supersaturated solutions of calcium sulphate, pure, and mixed with other salts, B., 676.
calcium sulphate. III. New methods of analysis and use of plaster, B., 722.
- Chassevent, L. See also Jolibois, P.
- Chatagnier, M., cement manufacture, (P.), B., 603.
- Chataway, H. D., fractionation of linseed oil at 293°, B., 584.
- Chatfield, W. T., filtering machines, (P.), B., 831.
- Chatham, R. H., and Celanese Corporation of America, treatment [finishing] of fabrics, paper, etc., (P.), B., 872.
- Chattaway, F. D., and Coulson, E. A., nitration of benzil; 3:5:3':5'-tetranitrobenzil, A., 461.
- Chattaway, F. D., and Curjel, W. R. C., crystalline forms of 5-nitrosalicylic acid and of related compounds, A., 98.
- Chattaway, F. D., and Humphrey, W. G., action of halogen-substituted phenylhydrazines on dihydroxytartaric acid, A., 776.
4-amino-1-phenyl-5-pyrazolone-3-carboxylic acid, A., 1087.
- Chattaway, F. D., and Morris, A. A., condensation of chloral with phenol, A., 967.
- Chattaway, F. D., and Prats, F. C. y., condensation of *p*-hydroxybenzoic acid with chloral, A., 458, 969*.
- Chattaway, F. D., and Walker, A. J., reduction of *o*-nitrophenylisodiazomethanes, A., 353.
- Chatterjee, N. K. See Brahmachari, B. B.
- Chatterji, A. C., and Dhar, N. R., adsorption of sols and ions by precipitates and its influence on the formation of periodic precipitates, A., 106.
condition of silver chromate in gelatin from electric conductivity and diffusion experiments, A., 201*.
- Chatterji, A. C. See also Dhar, N. R.
- Chaturvedi, H. S., and Watson, E. R., variable tannin content of wood of Kumaon oak (*Quercus incana*), B., 20.
- Chaturvedi, H. S. See also Watson, E. R.
- Chaudhury, D. R. See Bose, P. K.
- Chaudhury, S. G., and Kundu, P., constitution of arsenious sulphide sol in presence or absence of arsenious acid, A., 412.
- Chaudhury, S. G. See also Mukherjee, J.
- Chaudron, G. See Forestier, H., and Huggett, J.
- Chaudun, (Mlle.) A. See Colin, H.
- Caussin, J. See Blanchard, E.
- Chauvenet, E., and Duchemin, E., purification of beryllia, A., 1155.
combinations of zirconium oxychloride with the alkali chlorides, A., 1156.
- Chaux, R. See Moureu, C.
- Chavanne, G., inactive 1:3-dimethylcyclopentane, A., 46*.
spontaneous oxidation of a saturated cyclic hydrocarbon, A., 452.
- Chavanne, L., process and apparatus for the gasification of solid fuels, (P.), B., 674, 722.
- Chavassieu, H. L. J., and Société Pour la Fabrication de la Soie "Rhodiaseta," spinning process, (P.), B., 438.
- Chemical Construction Co. See Hechenbleikner, I.
- Chemical Engineering & Wilton's Patent Furnace Co., Ltd. See Shadbolt, S. M.
- Chemical Machinery Corporation. See Field, C.
- Chemical & Metallurgical Co., Ltd. See Smith, S. C.
- Chemical Research Syndicate, Ltd., and Weaver, J. B., cracking hydrocarbon oils, (P.), B., 674*.
- Chemical Treatment Co. See Fink, C. G.
- Chemical Works (formerly Sandoz). See Chemische Fabrik vorm. Sandoz.
- Chemin, E., and Legendre, R., free iodine in *Faulkenbergia doublletii*, Sauv., A., 80.
- Chemisch-Pharmzeutische Akt.-Ges. Bad Homburg, manufacture of quinine solutions suitable for subcutaneous injections, (P.), B., 317.
stabilisation of molecular compounds of pyramidone and butylchloral hydrate, (P.), B., 573.
- Chemisch-Pharmzeutische Akt.-Ges. Bad Homburg, and Liebrecht, A., manufacture of medicaments containing bismuth, (P.), B., 60.
- Chemisch-Pharmzeutische Akt.-Ges. Bad Homburg. See also Liebrecht, A.
- Chemische Fabrik auf Aktien (vorm. E. Schering), manufacture of new diacylthiourea-S-alkyl esters, (P.), B., 172.
manufacture of new complex metal alcoholates, (P.), B., 316.
heavy metal salts of mercaptosulphonic acids, (P.), B., 348.
manufacture of organic auro-mercapto-acids and salts thereof, (P.), B., 349.
manufacture of halogen substituted oxindole-3-acetic acids and homologues thereof, (P.), B., 380*.
manufacture of chloro-iodo-compounds of 2-aminopyridine and its derivatives, (P.), B., 572.
obtaining the active constituents of germ glands, (P.), B., 619.
manufacture of symmetrical diarylguanidines, (P.), B., 669.
production of highly-active blood charcoal, (P.), B., 805.
manufacture of derivatives of amino-metal-mercaptosulphonic acids and salts thereof, (P.), B., 860.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Brugsch, T., and Horsters, H., preparation from carboxylic acids of the pyridine and quinoline series of derivatives which are easily soluble in water, (P.), B., 286.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Feldt, A., Schoeller, W., and Borgwardt, E., heavy-metal mercaptosulphonic [acid] compounds, (P.), B., 797*.
- Chemische Fabrik auf Aktien (vorm. E. Schering), Görnitz, K., and Goebel, H., means for combating plant pests, (P.), B., 663.
means for combating plant diseases, (P.), B., 663.

- Chemische Fabrik auf Aktien** (vorm. *E. Schering*), and *Krais*, *A.*, oxidation of sugars to osones, (P.), B., 619, 924.
- Chemische Fabrik auf Aktien** (vorm. *E. Schering*), and *Mayer*, *R.*, manufacture of compounds of *C: C*-disubstituted barbituric acids and 4-dimethylamino-1-phenyl-2:3-dimethyl-5-pyrazolone, (P.), B., 172.
- Chemische Fabrik auf Aktien** (vorm. *E. Schering*), *Schoeller*, *W.*, and *Gehrke*, *M.*, manufacture of a pharmaceutical product containing arsenic, (P.), B., 203*, 925*.
- Chemische Fabrik auf Aktien** (vorm. *E. Schering*), *Schoeller*, *W.*, and *Schmidt*, *Kurt*, production of derivatives of oxindole-3-acetic acid and its homologues containing halogens substituted in the aromatic nucleus, (P.), B., 286.
- preparation of *Bz*-halogenated derivatives of oxindole-3-acetic acid, (P.), B., 378.
- Chemische Fabrik auf Aktien** (vorm. *E. Schering*), and *Zöllner*, *G.*, preparation of derivatives of 6-alkoxy-4-methylquinoline, (P.), B., 379.
- Chemische Fabrik K. Albert**, *Amann*, *A.*, and *Fonrobert*, *E.*, synthetic resins, (P.), B., 85, 452*.
- condensation products from mono- and di-cyclic phenols and aldehydes, (P.), B., 119.
- Chemische Fabrik K. Albert**. See also *Amann*, *A.*
- Chemische Fabrik Bernburg H. Wagner & Co.**, and *Finkelstein*, *A.*, production of phosphoric acid and acid phosphates, (P.), B., 298.
- Chemische Fabrik Coswig-Anhalt G.m.b.H.**, and *Drathen*, *E. von*, distillation or concentration of hydrogen peroxide, (P.), B., 815.
- Chemische Fabrik Griesheim-Elektron**, manufacture of vat dyestuffs of the anthraquinone series, (P.), B., 68.
- manufacture of ice colours, (P.), B., 71.
- manufacture of water-insoluble azo-dyes, (P.), B., 212.
- manufacture of azo-dyes, (P.), B., 275.
- production of methane, (P.), B., 316.
- preparation of stable diazo-compounds, (P.), B., 437.
- Chemische Fabrik Griesheim-Elektron**. See also *I. G. Farbenind. A.-G.*
- Chemische Fabrik Grünau, Landshoff & Meyer Akt.-Ges.**, manufacture of *N*-monoalkyl-*p*-aminophenol, (P.), B., 743.
- Chemische Fabrik Grünau, Landshoff & Meyer Akt.-Ges.**, and *Franke*, *E.*, preparation of solid, water-soluble, basic aluminium acetate and formate, (P.), B., 459.
- Chemische Fabrik Grünau, Landshoff & Meyer Akt.-Ges.**, and *Kirchner*, *W.*, accelerating the setting of hydraulic binding agents (P.), B., 816.
- Chemische Fabrik von Heyden Akt.-Ges.**, and *Feibelman*, *R.*, preparation of acetone from acetic acid, (P.), B., 347.
- Chemische Fabrik von Heyden Akt.-Ges.**, and *Gebauer*, *R.*, preparation of cadmium salts of phenols and phenol derivatives, (P.), B., 286.
- solutions of polymerised formaldehyde, free from paraformaldehyde, in mono- or poly-hydric alcohols, (P.), B., 348.
- Chemische Fabrik von Heyden Akt.-Ges.**, and *Schmidt*, *Hans*, preparation of soluble organic antimony compounds, (P.), B., 203.
- Chemische Fabrik Johannisthal G.m.b.H.**, *Vietinghoff-Scheel*, *K. von*, and *Trostler*, *F.*, recovery of the filling material of used dry batteries, (P.), B., 339.
- Chemische Fabrik Kalk G.m.b.H.**, and *Oehme*, *H.*, production of sodium sulphite and ammonium chloride, (P.), B., 298.
- production of solid sodium bisulphite or sulphite, (P.), B., 777.
- vulcanisation of rubber, (P.), B., 824.
- Chemische Fabrik Kalk G.m.b.H.**, *Oehme*, *H.*, and *Herrmuth*, *E.*, production of alkali bisulphites or metabisulphites from alkali sulphates and alkaline-earth bisulphites, (P.), B., 330.
- lead alloys of easily oxidisable metals, (P.), B., 490.
- Chemische Fabrik E. Merck**. See *Merck*, *E.*, **Chemische Fabrik.**
- Chemische Fabrik L. Meyer**, wood-killer, (P.), B., 826.
- Chemische Fabrik Milch Akt.-Ges.**, and *Lindner*, *K.*, dyeing and printing animal and vegetable materials, (P.), B., 650.
- dyeing or printing animal and vegetable fibres with mordant dyes, (P.), B., 650.
- Chemische Fabrik H. Noerdlinger Akt.-Ges.**, separation of solid resinous substances and oleaginous fatty acids from tall oil, (P.), B., 258.
- Chemische Fabrik Pott & Co.**, preparation of aqueous emulsions of substances insoluble in water, (P.), B., 361.
- improving the spinning properties of cellulose solutions, (P.), B., 963.
- Chemische Fabrik vorm. Sandoz**, making allium preparations for medical use, (P.), B., 268.
- production of azo-dyes for dyeing cellulose esters, especially cellulose acetate, (P.), B., 469.
- increasing the affinity of animal fibres for dyestuffs, (P.), B., 475.
- preparation of a printing paste for calico printing with cylinders, (P.), B., 699.
- dyeing of effect threads, (P.), B., 812.
- preparation of gall acids, (P.), B., 956.
- Chemische Fabrik vorm. Sandoz**. See also *Tagliani*, *G.*
- Chemische Fabrik Stockhausen & Cie**, improving the fastness to rubbing of developed dyeings, (P.), B., 650.
- Chemische Fabrik H. Stoltzenberg**, stabilisation of hydrocyanic acid for use as an insecticide, (P.), B., 344.
- production of phosphorus mist, (P.), B., 815.
- Chemische Fabrik H. Stoltzenberg**. See also *Zemplén*, *G.*
- Chemische Fabrik vorm. Weiler-ter Meer**. See *I. G. Farbenind. A.-G.*
- Chemische Fabrik J. Wiernik & Co. Akt.-Ges.**, preparation of oils for paint media, (P.), B., 196.
- Chemische Fabrik Wolkramshausen G.m.b.H.**, and *Helbig*, *M.*, production of hydrochloric acid and magnesia from magnesium chloride, (P.), B., 480.
- Chemische Werke "Herkules" G.m.b.H.**, process of tanning animal hides, (P.), B., 854.
- Chemnitius**, *F.*, preparation of physostigmine [eserine], A., 682.
- preparation of atropine, A., 1094.
- preparation of homatropine, A., 1097.
- technical preparation of the silver compounds of the German pharmacopoeia, B., 124.
- technical preparation of ferric saccharate and ferric ammonium citrate, B., 265.
- commercial preparation of aluminium acetate, B., 388.
- technical production of yohimbine, B., 617.
- preparation of atropine and cocaine, B., 669.
- separation of the most important opium alkaloids, B., 732.
- manufacture of bismuth salts, B., 748.
- manufacture of bromides and iodides, B., 813.
- technical production of tannin, B., 825.
- Chemosan Akt.-Ges.** See *Sagi*, *E.*
- Chen**, *C. A.* See *Feist*, *F.*
- Chen**, *C. C.* See *Lin*, *K. H.*
- Chen**, *K. K.*, ephedrine, pseudoephedrine, and β -phenylethylamine with reference to their effects on the pupil and on the blood-pressure, A., 539.
- Chên**, *T. L.* See *Weimarn*, *P. P. von*.
- Chenault**, *R. L.* See *Ruark*, *A. E.*
- Chenel**, analysis of mixtures containing water, alcohol, and ether, B., 155.
- determination of alcohol in dehydrated [nitro-] cotton, B., 204.
- Cheney**, *E. W.*, measurement of index of refraction of gases at higher temperatures, A., 294.
- Cheney**, *M. B.* See *Barnebey*, *O. L.*
- Cheng**, *L. H.* See *Harkins*, *W. D.*
- Cheng**, *P. V.* See *Lynn*, *E. V.*
- Cherchever**, *G.* See *Brodski*, *A.*
- Cherry**, *O. A.*, and **Cutler-Hammer Manufacturing Co.**, composition of material [rosin], (P.), B., 305.
- Chess**, *G.* See *Sanna*, *A.*
- Chevalet**, *L.*, saturator for the production of ammonium sulphate, (P.), B., 299.
- Chevalet**, *P.*, plates for distillation columns, (P.), B., 929.
- Chevalier**, *R. F.*, separation of condensate from steam, (P.), B., 690.
- Chevallier**, *R.*, new ferromagnetic ferric oxide, A., 433.
- Chevenard**, *P.*, anomalous internal friction of reversible ferro-nickels, B., 279.
- Chevenard**, *P.*, and *Portevin*, *A.*, influence of carbon and silicon on the graphitisation of white castings, B., 110.
- Chevenard**, *P.* See also *Bauret*, *P.*
- Chevrier**, *D.*, and *Salles*, *M.*, sterilisation of drinking water by electrolysis, B., 670.
- Chew**, *C.*, and *Pyman*, *F. L.*, tautomerism of the amidines. VII. Methylation of benzenyl-*p*-nitrodiphenylamidino [*N*-phenyl-*N'*-*p*-nitrophenylbenzamidino], A., 1061.
- Chew**, *S. N.* See *Pneumatic Conveyance & Extraction, Ltd.*
- Cheymol**, *J.* See *Hérissey*, *H.*
- Chiari**, *H.* See *Alders*, *N.*

- Chibnall, A. C., and Channon, H. J., ether-soluble substances of cabbage-leaf cytoplasm. I. Preparation and general characters. II. Calcium salts of glyceridephosphoric acids, A., 386.
- ether-soluble substances of cabbage-leaf cytoplasm. III. Fatty acids, A., 799.
- Chibnall, A. C. See also Channon, H. J., and Grover, C. E.
- Chicago Pneumatic Tool Co., and Davenport, R. W., transformation of heat, more particularly applicable to refrigerators (P.), B., 927.
- Chick, H., Kovenchevsky, V., and Roscoe, M. H., difference in chemical composition of the skeletons of young rats fed (1) on diets deprived of fat-soluble vitamins and (2) on a low-phosphorus rachitic diet, compared with those of normally nourished animals of the same age, A., 176.
- Chick, H., and Roscoe, M. H., influence of diet and sunlight on the amount of vitamin-A and vitamin-D in the milk afforded by a cow, A., 175.
- composite nature of the water-soluble B-vitamin, A., 702.
- Chick, O., separation and determination of mixtures of iodide, bromide, and chloride, B., 651.
- Chicoineau, E., tanning animal hides with metallic salts, (P.), B., 758.
- Chikano, M., and Kitano, T., fission of α -aminophenylacetic acid by *Oidium lactis*, A., 596.
- Child, R. See Brooker, L. G. S.
- Child, R. O., tar or tarry compositions applicable for roadways and the like, (P.), B., 724.
- Child, R. O. See also Lutyens, L. C.
- Chillas, R. B., jun., and Atlantic Refining Co., fractional distillation, (P.), B., 129.
- Chilovsky, C., process and apparatus for the manufacture of gas from heavy oils, (P.), B., 805.
- manufacture of gas from heavy oils, (P.), B., 805, 867.
- Chintschin, J., constants of cellulose pulp; change with time of cooking, B., 519.
- Chisholm, O. P., and American Smelting & Refining Co., method of treating lead dross, (P.), B., 819.
- Chitty, C. W., Kent-Jones, D. W., and Woodlands, Ltd., heat-treatment of cereal substances, (P.), B., 203.
- Chitty, C. W. See also Kent-Jones, D. W.
- Chlopin, V., detection of iridium, and colorimetric determination of small quantities of iridium in platinum, A., 1162.
- Chlopin, V., and Nikitin, B., fractional crystallisation of radioactive substances. II. Equilibrium in the system barium bromide-radium bromide-hydrogen bromide-water at 0° and 25°, A., 1133.
- Cholnoky, L. von. See Zechmeister, L.
- Chopin, M., determination of baking value of wheat by measure of specific energy of deformation of dough, B., 396.
- Chopin, M. J. E., analysing gases [especially flue gases for carbon dioxide], (P.), B., 2.
- Chopra, N. D., and Bullen, F. J., heat-treatment of steel, (P.), B., 560.
- Chorley, P. See British Dyestuffs Corporation, Ltd.
- Chou, T. Q., sikimitoxin, the toxic principle of *Illicium religiosum*, Sieb. (Mang-t'sao), A., 600.
- poisonous principle from Chinese rhododendron, *Rhododendron hunnewellianum*, A., 600.
- Choucroun, (Mlle.), selective permeability of membranes; influence of the size of their interstices, A., 931.
- Choucroun, (Mlle.). See also Perrin, J.
- Chrétien, A. See Ambard, L.
- Christ, W. See I. G. Farbenind. A.-G.
- Christen, A., stable saponin solution of good cleansing action, (P.), B., 851.
- Christensen, C. W. See Rubber Service Laboratories Co.
- Christensen, H. R., and Jensen, H. L., bacteriological methods for the investigation of soil fertility, B., 856.
- Christensen, H. R., and Jensen, S. T., determination of the lime requirement of the soil, B., 309.
- Christensen, N. C., treating sulphide ores of lead and zinc, (P.), B., 337.
- manufacture of powdered or dried milk products, (P.), B., 570*.
- treatment of ores with chloride solutions, (P.), B., 726.
- apparatus for filtration, (P.), B., 801.
- precipitating copper from sulphate solution, (P.), B., 847.
- Christiansen, F. H., cement mixture, (P.), B., 254.
- Christiansen, J. A., constitution of boron [hydride] compounds, A., 399.
- Christiansen, J. A., velocity of coupled reactions, A., 1035.
- Christie, A. See Coleman, D. A.
- Christlieb, H. See Kindler, K.
- Christman, A. A., and Eckstein, H. C., purine metabolism. I. Distribution of uric acid in blood and lymph of the dog following intravenous injection of uric acid, A., 1218.
- Christmann, L. J., and American Cyanamid Co., lactonitrile fumigant, (P.), B., 374.
- Christoffels, B., apparatus for purifying gases by filtration through loose solid material, (P.), B., 467.
- Christoph, G. W., American Hardware Corporation, and Sterling Blower Co., drying apparatus, (P.), B., 351.
- Christopher, H. S., and Standard Oil Co. of California, decolorising and clarifying agent [for petroleum], (P.), B., 403.
- Chrometzka, F., products of oxidation of uric acid by hydrogen peroxide, A., 278.
- Chrometzka, F. See also Rona, P., and Schittenheim, A.
- Chromium Corporation of America, and Fink, C. G., production of chromium-plated articles with mirror-like, "coloured," or the like surface, (P.), B., 491.
- Chromium Products Corporation and Hosdowich, J. M., electroplating with chromium, (P.), B., 659*.
- "Chromo" Filings. m.b.H., [two-part rotatable screen for use in] natural colour cinematography, (P.), B., 957.
- Chrzaszcz, T., and Goralovna, C., enzymes of cow's milk. I. Effect of diet. II. Diastase of the milk in disease, A., 372.
- Chrzaszczewska, A., and Chwaliński, S., thioethers of certain ketones, and their derivatives, A., 667.
- Chrzaszczewska, A., and Popiel, J., phenyl- α -chloroacetonitrile and α -bromoisobutyronitrile, A., 652.
- Chrzaszczewska, A., and Sobieranski, W., monobromoacetone and its cyanohydrin, A., 648.
- Chu, H. P. See Davy, E. D.
- Chudoba, K. See Lecher, H.
- Chudozilov, R. K., preparation of 2:3- and 1:4-dinitronaphthalene, A., 49.
- Chuit, P., Boelsing, F., Hausser, J., and Malet, G., undecenoic acid and its homologues. I. and II., A., 40, 445.
- Chuit, P., Boelsing, F., and Malet, G., monomethylated polymethylenedicarboxylic acids and their derivatives, A., 446.
- Chur, E., separation of a mixture of liquids having different boiling points, (P.), B., 544.
- Church, C. G. See Chace, E. M.
- Church, M. B., Paine, H. S., and Hamilton, J., sugar-tolerant yeasts in chocolate-coated creams, B., 345.
- Church, S. R., new type of tar, B., 182.
- Churchman, J. W., relation of age of bacteria to bacteriostatic properties of aniline dyes, A., 281.
- Churchman, J. W., and National Aniline & Chemical Co., Inc., germicide [composition], (P.), B., 206.
- Chute, G. M. See Bain, J. W.
- Chwaliński, S. See Chrzaszczewska, A.
- Cialtjeian, O. See Gambarian, S.
- Cicali, G., production of hydrogen practically free from carbon monoxide from water-gas, (P.), B., 43.
- Ciment Portland Artificiel de Pont-à-Vendin, anc. Établ. E. Cambier, production of cement and mortar impervious to water, (P.), B., 966.
- Cioaltea, V. See Folin, O.
- Ciochina, J., sulphur in iron and steel, B., 167, 335.
- titrimetric determination of hydrogen sulphide in producer gas, B., 465.
- determination of alkalis in ores, clays, and refractory materials, B., 605.
- Cione, L. See Berlingozzi, S.
- Cislak, F. E., Eastman, I. M., and Senior, J. K., reduction of 2-nitrofluorene, A., 1061.
- Citron, H., determination of pepsin in gastric juice, A., 372.
- Cittadini, A. See Giordani, F.
- Cittert, P. H. van. See Burger, H. C.
- Ciusa, R., and Grillo, G., mercurated derivatives of furan and of pyrrole, A., 685.
- Civen, N. See Howard, C. D.
- Claasen, W., production of new ester mixtures, (P.), B., 860*.
- Claassen, A. See Bijvoet, J. M.
- Claassen, H., production of food albumin from carbohydrates, B., 712.
- fermentation of [beet] molasses by the aeration process of yeast manufacture, B., 888.
- Claassen, H. See also Weber, J.

- Claessens, (Mlle.) J. See Pinkus, A.
- Clancey, V. J., constitution of sponges. I. The common bath sponge, *Hippospongia equina*, A., 65.
- Clancy, J. C., manufacture of hydrocarbons and cyanides, (P.), B., 323*.
- conversion [cracking] of oils, (P.), B., 385.
- Clapp, E. I., and United States Industrial Alcohol Co., distillation of alcohol, (P.), B., 200.
- Clarens, J., relativity of the terms "alkalinity" and "acidity" as applied to soils, B., 950.
- Clark, A. H., assay of salicylates and benzoates. II., B., 266.
- continuous extraction apparatus, B., 399.
- Clark, B. F. See Simon-Carves, Ltd.
- Clark, E. M., and Standard Development Co., distilling hydrocarbon material, (P.), B., 437.
- Clark, E. M. See also Howard, F. A.
- Clark, F. W. See Travers, M. W.
- Clark, G. L., variability of long diffraction spacings in paraffin waxes, A., 715.
- X-ray diffraction patterns from liquids and colloidal gels, A., 816.
- X-rays and colloids, A., 1138.
- fume losses at the Sulphide Corporation's works at Cockle Creek, N.S.W., B., 15.
- effects of X-rays in photochemical oxidation, catalyst activation, and the ionisation of gaseous mixtures containing detonation inducers and suppressors, B., 692.
- Clark, G. L., Aborn, R. H., Brugmann, E. W., and Davidson, R. L., X-ray diffraction patterns from liquids and colloidal gels, A., 924.
- Clark, G. L., and Henne, A., ultra-violet spectroscopy of engine-fuel flames, A., 810.
- Clark, G. L. See also Henne, A.
- Clark, G. W., acid- and base-forming elements in foods, B., 668.
- Clark, G. W., and Carter, K. L., reaction changes of human saliva, A., 788.
- Clark, G. W., and Levine, L., inorganic constituents of human saliva, A., 987.
- Clark, G. W., Shell, J. S., Josephson, J. B., and Stockle, M. E., influence of diet on the inorganic constituents of human saliva, A., 1104.
- Clark, G. W. See also Updegraff, H.
- Clark, H. H., and Clark Fibre Products Corporation, production of cellulose product, (P.), B., 296.
- Clark, H. W., effect of pipes of different metals upon the quality of water supplies, B., 509.
- Clark, I. A. See Kauffman, H. L.
- Clark, J. d'A., apparatus for determining, indicating, and controlling the moisture content of paper and like materials, (P.), B., 768.
- Clark, J. H., theory of muscle contraction with X-ray diffraction patterns from relaxed and contracted muscles, A., 1107.
- Clark, J. H., jun. See Fritz, H. E.
- Clark, K. G., and Hetherington, H. C., heat of formation of ammonium carbamate from ammonia and carbon dioxide, A., 940.
- Clark, K. G., and Krase, H. J., partial pressures of carbon dioxide, ammonia, and water over the system water-ammonia-carbon dioxide-ammonium nitrate, B., 250.
- Clark, L. H., scattering of γ -rays, A., 183.
- Clark, L. H. See also Sharples Specialty Co.
- Clark, N. A., Humfeld, H., and Alben, A. O., electro dialysis of soils and the Mattson cell, B., 952.
- Clark, P. B. See Dill, D. B.
- Clark, R. H., essential oil content of some British Columbian-grown mints, B., 505.
- Clark, R. H., and Carter, N. M., determination of nitrite formed by replacement of nitro-groups in presence of highly-coloured reaction products, A., 474.
- Clark, R. H., and Lucas, C. C., essential oil content of *Chamaecyparis nootkatensis*, B., 506.
- Clark, R. H., and Winter, (Miss) A. G., alkaloidal content of British Columbian-grown *Hydrastis canadensis* and *Atropa belladonna*, B., 504.
- Clark, R. J., laboratory apparatus for the refining of Pacific North-west kaolin, B., 750.
- Clark, W., fogging action of persulphate, B., 269.
- oxidising agents in the study of the sensitivity of photographic emulsions, B., 507.
- Clark Fibre Products Corporation. See Clark, H. H.
- Clarke, H. T. See Bachmann, W. E.
- Clarke, J., Robinson, R., and Smith, J. G., relative directive powers of groups of the form RO and RR'N in aromatic substitution. VIII. Nitration of 4-n-butoxyanisole, A., 1183.
- Clarke, J. G. See Threlfall, R.
- Clarke, J. R., excitation of spectra by high-frequency oscillations, A., 1119.
- Clarke, L. See Gilbert, E. C.
- Clarke, S. G., separation of vanadium from tungsten, A., 1048 B., 752.
- Clarke, S. G., Kenyon, J., and Phillips, Henry, dependence of rotatory power on chemical constitution. XXXI. Resolution of *m*-carboxyphenylmethylsulphine-*p*-toluenesulphonylimine, A., 243.
- Classen, A., manufacture of cellulose-containing solutions, (P.), B., 70.
- Claude, G., and Lazote, Inc., separation of gases liquefying at different temperatures, (P.), B., 65*.
- synthesis of ammonia, (P.), B., 108*.
- synthesis of ammonia [dehydration of gases], (P.), B., 140*.
- synthesis of ammonia by hyper-pressures, (P.), B., 189*.
- separation of constituents of gaseous mixtures containing hydrogen, (P.), B., 320*.
- Claude, G., and l'Air Liquide, Société Anonyme pour l'Étude et l'Exploitation des Procédés G. Claude, manufacture of fertilisers, (P.), B., 344*.
- Claus, C., compressed compositions for the production of bearings, (P.), B., 784, 943*.
- Claus, W., and Dango, B., segregation phenomena in aluminium-copper alloys, B., 846.
- Clause, W. L. See Molony, S. B.
- Clausing, P. See De Boer, J. H.
- Clavel, R., weighting natural silk, (P.), B., 295.
- production of artificial leather, (P.), B., 362.
- treatment of products containing cellulose acetate, (P.), B., 473.
- dyeing, printing, or stencilling of cellulose acetate materials, (P.), B., 553.
- treatment of cellulose ester materials, (P.), B., 599.
- Clavera, J. M., analytical study of roasted coffee berries, B., 922.
- Clavera, J. M. See also Moles, E.
- Clavier, (Mlle.) J., reflecting power of some unoxidisable steels, B., 703.
- Clay, W. F. See Weston, H. L.
- Clayton, H. H., atmospheric ozone and solar variability, A., 850.
- Clayton, W., flocculation of troublesome precipitates in analysis, A., 329.
- Clayton, W., and Gibbs, W. E., examination for halophilic micro-organisms, B., 615.
- Clement, A. W., and Ludlum Steel Co., titanium alloy, (P.), B., 337.
- Clément, J. See Gutton, H.
- Clément, L., Rivière, C., and Courtaulds, Ltd., manufacture of threads, filaments, strips, or films from cellulose esters, (P.), B., 599*.
- Clement, W. J. See Bossert Corporation.
- Clemo, G. R., Perkin, W. H., jun., and Robinson, R., strychnine and brucine. IV., A., 888.
- Clennell, J. E., determination of cobalt by the nitroso- β -naphthol method, A., 640.
- Clenshaw, W. J. See Tapsell, H. J.
- Clermontel, A. J., preparation of chamois leather, (P.), B., 758.
- Cleveland Trust Co. See McCaughey, W. J.
- Clibbens, D. A., and Geake, A., chemical analysis of cotton. XV. Determination of combined sulphuric and hydrochloric acids in cotton, B., 471.
- determination of copper number [of cellulose], B., 551.
- Clibbens, D. A., Geake, A., and Ridge, B. P., chemical analysis of cotton; action of hot dilute sodium hydroxide solutions on modified cotton cellulose, B., 870.
- Clibbens, D. A., and Ridge, B. P., chemical analysis of cotton. XIV. Rate of oxycellulose formation, B., 471.
- Clifford, W. M., effect of halogen salts on peptic digestion, A., 698.
- Cloke, J. G., treatment of clays and the like for production of new compositions, (P.), B., 653.
- Cloud, W. A., grinding, pulverising, or disintegrating mills, (P.), B., 31, 63.
- Cloudsley, J. L. See Lever Bros., Ltd.
- Clover, G. R., and Cooper Hewitt Electric Co., application and treatment of varnish, (P.), B., 916.

- Clutterbuck, P. W., formation of succinic acid in the body. I. Determination of succinic acid and its formation in muscle and liver pulp, A., 693.
- Coad-Pryor, E. A., economics of the [glass] annealing process, B., 409.
- Coast, J. W., jun., and Doherty Research Co., apparatus for distilling oil, (P.), B., 806.
- Coast Range Steel, Ltd., and Avis, J. L., reduction of iron ores, (P.), B., 846.
- Coates, W. M. See Bentley, W. H.
- Coats, H. P. See Kiehl, S. J.
- Cobb, E. B., and Standard Development Co., refining of [hydrocarbon] oils, (P.), B., 273.
- Cobb, J. W. See Angus, H. T., Branson, W. R., Dent, F. J., Sutcliffe, J. A., and Wood, J. F. L.
- Coblentz, W. W., and United States, eye-protective glass, (P.), B., 779.
- Coburn, A. F. See Richards, D. W., jun.
- Coburn, S. E., practical application of hydrogen-ion control in the digestion of sewage sludge, B., 269.
- Cochran, E. S., and McCrosson, J. T., production of a cannery syrup for the canning and preserving of fruits and the products thereof, (P.), B., 89.
- Cochrane, J. R., and Leoper, G. W., viscosity of cellulose nitrate in various mixtures of butyl acetate, ethyl acetate, ethyl alcohol, and benzene as solvents, A., 508.
- Cochrane, W. F., and United States Industrial Alcohol Co., production of a nickel-copper alloy, (P.), B., 194.
- Cochrane Corporation, and Dahl-Rode, S., production of base-exchange substances, (P.), B., 382.
- Cockburn, T., and Love, M. McF., analysis of egg yolk preserved with glycerin, B., 314.
- Cocking, T. T., determination of cincole, B., 571.
- Cockram, C., and Wheeler, R. V., composition of coal; resolution of coal by solvents, B., 401.
- resins in coal and their effect upon its properties, B., 802.
- Cockrell, W. L. See McIntosh, F. F.
- Cocks, H. C. See Allmand, A. J.
- Coehn, A., and Schafmeister, O., electrokinetic potential of metals, A., 420.
- Coelho, E. See Pincussen, L.
- Coelingh, (Frl.) M. See Ornstein, L. S.
- Coffey, S., mercuration of aromatic substances. III. *p*- and *m*-Nitrotoluenes, A., 165.
- Coffey, S. See also British Dyestuffs Corporation, Ltd.
- Coffin, C. C., and Maass, O., preparation and physical properties of isobutylene, A., 851.
- Coffman, A. W. See Layng, T. E.
- Coffman, D. D. See Marvel, C. S.
- Coggeshall, G. W., Reilly, A., and Jefferson Construction & Oil Treating Co., separation of oily emulsions, (P.), B., 901.
- Coghill, R. D. See Johnson, T. B.
- Cohaus, C. See Tröger, J.
- Cohen, A., influence of pressure on the electrolysis of water, A., 630.
- Cohen, B., synthesis and indicator properties of some new sulphonephthaleins, A., 558.
- Cohen, B. See also Phillips, M.
- Cohen, C., chlorination reduces foaming in Imhoff tanks, B., 381.
- [water] chlorination for algae control, B., 430.
- Cohen, E., Kamerlingh Onnes, A., 614.
- Cohen, E., and Dekker, K. D., physico-chemical studies on tin. IX. Transition temperature grey tin \rightleftharpoons white tin, A., 818.
- metastability of elements and compounds as a result of enantiotropy or monotropy. X. True specific heats of chemically and physically pure white and grey tin, A., 818.
- Cohen, E., Verkade, P. E., Miyake, S., Coops, J., jun., and Hoeve, J. A. van der, salicylic acid as a calorimetric standard, A., 521*.
- Cohen, (Miss) E. See McLennan, J. C.
- Cohen, E. S. A., manufacture of dry well-preserved rubber from latex, (P.), B., 120*.
- Cohen, F. L. See Adams, R.
- Cohen, H., magnesium content of the cerebrospinal and other body-fluids, A., 692.
- Cohen, J. B. See Browning, C. H.
- Cohen, J. H. See Briefer, M.
- Cohen, P., and Levin, S. J., protein test for urea-formation function of the liver, A., 791.
- Cohen, W. D. See Boeseken, J.
- Cohn, E. J., activity coefficients of the ions in certain phosphate solutions; theory of buffer action, A., 206.
- Cohn, E. J., and Prentiss, A. M., physical chemistry of proteins. VI. Activity coefficients of the ions in certain oxyhaemoglobin solutions, A., 475.
- Cohn, H. See Herzog, R. O.
- Cohn, R. See Fodor, A.
- Coisset. See Vignes, H.
- Colange, G., absorption of ozone in the visible spectrum, A., 808.
- Colani, A., systems uranyl sulphate, alkali sulphate, water, at 25°, A., 830.
- Colas Products, Ltd., and Levy, F., bituminous paints and like coating and impregnating compositions, (P.), B., 755.
- Colbert, G. F., and Colbert, W. H., coating for [non-glare] mirror, (P.), B., 44.
- Colbert, W. H. See Colbert, G. F.
- Colclough, T. P., analysis of silicate slags, B., 654.
- Colcord, F. F., and United States Smelting, Refining, & Mining Co., electrolytic refining of metals, (P.), B., 116.
- Cole, L. J., Lindstrom, E. W., and Woodworth, C. M., selection for quality of oil in soya beans, B., 700.
- Cole, S. S., variations in softening points of refractory materials due to rate of heating, B., 779.
- Cole, W. F., manufacture of syrup, (P.), B., 921.
- Cole, W. H., pyridine test as quantitative method for determination of small amounts of chloroform, A., 270.
- Coleman, D. A., and Christie, A., rapid method for determining the gasoline colour value of flour and wheat, B., 396.
- gasoline colour value of several classes of wheat, B., 396.
- Coleman, D. A., and Dixon, H. B., rapid moisture-testing oven for cereal chemistry laboratories, B., 396.
- Coleman, D. A., Dixon, H. B., and Fellows, H. C., comparison of some physical and chemical tests for determining the quality of gluten in wheat and flour, B., 501.
- Coleman, D. A. See also Shollenberger, J. H.
- Coleman, E. H. See Martin, G.
- Coleman, G. H., Campbell, A. W., and Mullins, G. M., reaction of nitrogen trichloride with various types of olefine hydrocarbons, A., 553.
- Coleman, G. H., and Craig, D., nitrogen trichloride and unsaturated ketones, A., 1190.
- Coleman, G. H., Owen, C. N., and Rodriguez, J. A., effect of temperature and solvent on nitrogen trichloride additions; acetylene hydrocarbons, A., 538.
- Coleman, J. D. See Lovell, W. G.
- Coleman, S. P. See Parsons, L. W.
- Coleman, W. C., centrifugal separator and amalgamator, (P.), B., 726.
- Colin, H., mode of formation of sucrose in the beet, A., 596.
- Colin, H., and Augem, A., nature and metabolism of sugars in *Iris*, A., 1116.
- Colin, H., and Chaudun, (Mlle.) A., inversion of sucrose by acids, A., 26.
- law of hydrolysis of sucrose by acids, A., 115.
- mutarotation and alkalinity of the medium, A., 426.
- does the hydrolysis of sucrose by dilute acids belong to the unimolecular group of reactions? A., 835.
- Colin, H., and Franquet, R., alleged free pentoses of leaves, A., 599.
- Colin, H., and Ruppel, E., action of hydrochloric and hydrobromic acids on carbohydrates, A., 1173.
- Colin-Russ, A. See Bradley, H.
- Collet, (Mlle.) P., paramagnetism independent of temperature, A., 11.
- Collett, E., and Atmospheric Nitrogen Corporation, art of producing ammonia synthetically, (P.), B., 108*.
- Collie, J. N., and Klein, L., action of bromine on dimethylpyrone, A., 1082.
- Collin, F. J., Akt.-Ges., zur Verwertung von Brennstoffen & Metallen, discharging ammonium sulphate from saturating tanks, (P.), B., 555.
- Collin, L. P., causes and prevention of [ceramic] scumming and efflorescence, B., 253.
- Collin & Co., and Schäfer, J., cooling of coke and utilisation of the heat arising therefrom, (P.), B., 459.
- coking retorts, (P.), B., 740.
- Collings, G. H., influence of boron on the growth of the soya bean plant, B., 307.
- Collins, F. D., preservation of fresh fruit, vegetables, and like food materials, (P.), B., 569.

- Collins, *H.*, structure of boron, A., 5.
 structure of sodium, A., 87.
 structure of nickel, A., 183.
 structure of an atom of nitrogen, I., II., and III., A., 394, 606.
- Collins, *L. F.*, See White, A. H.
- Collins, *S. C.*, thermoregulator, A., 849.
- Collins, *W. D.*, Farr, *H. V.*, Rosin, *J.*, Spencer, *G. C.*, and Wichers, *E.*, recommended specifications for analytical reagent chemicals, A., 637.
- Collins, *W. T.* See McLennan, J. C.
- Collins Manufacturing Co., A. M., manufacture of coated laid paper, (P.), B., 406.
- Collinson, *G. T.* See Burgess, Laboratories, Inc., C. F.
- Collip, *J. B.*, effect of asphyxia on blood, A., 1101.
 composition of blood and tissues of foetal calf, A., 1103.
- Colloidal Equipment Corporation. See Butler, E. A.
- Colloidal Products Co., and Pettit, *R. M.*, production of soaps and detergents, (P.), B., 340*.
- Colman, *J.*, production of double salts of calcium halides with calcium lactate, (P.), B., 317.
- Collonge, *J.*, condensation of acetaldehyde with methyl *n*-propyl ketone, A., 449.
- Color Cinema Productions, Inc. See Waddingham, A. G.
- Colorado Vanadium Corporation. See Thews, K. B.
- Colt, (*Miss*) *P. M.* See Garard, J. D.
- Colton, *E. G.*, manufacture of luminous paint, (P.), B., 119.
- Colvin, *J.* See Nonhebel, G.
- Comay, *S.* See Morrell, J. C.
- Comber, *N. M.*, action of non-diffusible ions in soil phenomena, B., 308.
- Combes, *R.*, nitrogenous material in a ligneous plant during a year's growth, A., 488.
- Combustion Engineering Corporation. See Bell, *J. E.*, and Kreisinger, *H.*
- Combustion Rationelle, water-gas, (P.), B., 244.
- Combustion Utilities Corporation, and Caplan, *S.*, purification of tar acid-bearing oils, (P.), B., 807.
- Comel, *M.*, effect of hydrogen-ion concentration on the respiratory exchange of the tissues, A., 583.
 effect of p_H on the respiratory exchange of the muscle of the frog, A., 1107.
- Comley, *R. C.* See Elmore, G. H.
- Commercial Solvents Corporation and Legg, *D. A.*, fermentation processes for the production of butyl alcohol and acetone, (P.), B., 538*.
- Commercial Solvents Corporation, Littmann, *E. R.*, Brown, *B. K.*, and Bannister, *W. J.*, manufacture of synthetic resins, (P.), B., 532.
- Commercial Solvents Corporation. See also Arsem, *W. C.*, Brown, *B. K.*, Littmann, *E. R.*, and Woodruff, *J. C.*
- Commin, *F. J.*, and Snook, *S. W. G.*, apparatus for case hardening, (P.), B., 257.
- Commonwealth White Lead & Paints Proprietary, Ltd., manufacture of lead compounds, (P.), B., 259.
- Commonwealth White Lead & Paints Proprietary, Ltd. See also Lloyd, *G. F.*, and Wilhelm, *R.*
- Compagnie de l'Azote et des Fertilisants S. A. See Breslauer, *J.*
- Compagnie de Béthune, preparation of ethyl hydrogen sulphate, (P.), B., 859.
- Compagnie Française pour l'Exploit. des Procédés Thomson-Houston, [fixing terminals on electrodes of] primary voltaic cells, (P.), B., 493.
- Compagnie Générale d'Électricité, electrolyte for accumulators, (P.), B., 196.
- Compagnie Générale des Industries Textiles. See Duhamel, *E. C.*
- Compagnie Générale des Produits Chimiques de Louvres, and Pipereaut, *P.*, manufacture of chromates and manganates, (P.), B., 299.
- Compagnie des Lampes, manufacture of incandescence filaments, (P.), B., 850.
- Compagnie des Mines de Vicoigne, Noeux & Drocourt, preparation of resinous condensation products from formaldehyde and tar or crude tar-oils containing phenols, (P.), B., 197.
 treatment of light tar-oils, naphtha, or oil distillates, containing unsaturated hydrocarbons such as coumarone and indone, (P.), B., 211.
 cracking tar, etc., (P.), B., 211.
 production of lower-boiling oils from low-temperature tars or tar oils, (P.), B., 597.
 distillation of coal at low temperatures, (P.), B., 721.
- Compagnie Nationale de Matières Colorantes et Manuf. de Prod. Chim. du Nord Réunis, Établ. Kuhlmann, preparation of chlorinated perylenes and their derivatives, (P.), B., 470.
 preparation of vat dyes and intermediates from diacylperylene, (P.), B., 698.
- Compagnie Nationale de Matières Colorantes et Manuf. de Prod. Chim. du Nord Réunis, Établ. Kuhlmann, Courtot, *C.*, and Krolikovski, *J.*, preparation of α -indanone, (P.), B., 286.
- Compagnie Nationale de Matières Colorantes et Manuf. de Prod. Chim. du Nord Réunis, Établ. Kuhlmann, and Pereira, *H.*, preparation of perylenequinones, (P.), B., 697.
- Compagnie de Produits Chimiques et Electrometallurgiques Alais, Froges, & Camargue, purification of fluorspar, (P.), B., 481.
 apparatus for dissolving and filtering minerals and other inorganic material, (P.), B., 511.
 manufacture of anhydrous magnesium chloride, (P.), B., 580.
- Compagnie de Produits Chimiques et Electrometallurgiques Alais, Froges, & Camargue. See also Rochet, *J.*
- Complex Ores Recoveries Co., conversion of sulphide ores into sulphates, (P.), B., 337.
- Compressed Gas Corporation. See Mott, *C.*
- Compton, *A. H.*, electron distribution in sodium chloride, A., 1011.
- Compton, *A. H.* See also Jauncey, *G. E. M.*
- Compton, *K. T.*, and Van Voorhis, *C. C.*, heats of condensation of positive ions and the mechanism of the mercury arc, A., 926.
- Comte, *H.* See Meunier, *L.*
- Conant, *J. B.*, reduction potentials of quinones. III. Free energy of reduction referred to the gaseous state, A., 522.
- Conant, *J. B.*, and Garvey, *B. S.*, dissociation into free radicals of substituted dixanthyls. IV. Dixanthyl and dixanthyl-9:9'-dicarboxylic acid, A., 975.
 differential cleavage of the carbon-to-carbon linking by alkali metals, A., 1177.
- Conant, *J. B.*, and Lutz, *R. E.*, irreversible reduction of organic compounds. IV. Apparent reduction potentials of unsaturated carbonyl compounds, A., 522.
- Conant, *J. B.*, and Pratt, *M. F.*, irreversible oxidation of organic compounds. I. Oxidation of aminophenols by reagents of definite potential. II. Apparent oxidation potentials of certain phenols and enols, A., 116.
- Concentrate Products Co. See Lapp, *W. H.*
- Condon, *E.*, theory of intensity distribution in band systems, A., 89.
- Condon, *E.*, and Van Amringe, *E. V.*, mean free paths in a gas the molecules of which are attracting rigid elastic spheres, A., 302.
- Condon, *E. U.*, coupling of electronic and nuclear motions in diatomic molecules, A., 808.
 wave mechanics and the normal state of the hydrogen molecule, A., 808.
- Condorelli, *L.*, electrolytic equilibrium of the blood; effects of the intravenous injection of calcium salts; importance of the liver, A., 584.
 fixation of intravenously injected calcium by the tissues, A., 989.
- Conduit, *G. W.* See Dann, *C. B.*
- Cone, *C. N.* See Davidson, *G.*
- Cone, *W. H.*, and Cady, *L. C.*, diphenylbenzidine as internal indicator for the titration of zinc with potassium ferrocyanide, A., 331.
 diphenylamino [acetate] as a qualitative reagent for zinc, A., 1046.
- Coniglio, *L.*, lanthanum, cerous, praseodymium, neodymium, and samarium malates, A., 1054.
- Conkle, *R. H.* See Weston, *H. L.*
- Conley, *C. V.* See Richardson, *A. S.*
- Conley, *J. E.* See Marden, *J. W.*
- Conn, *H. J.*, improved stain for bacteria in soil, B., 263.
- Conn, *H. J.*, and Holmes, *W. C.*, fluorescein dyes as bacterial stains, particularly for soil preparations, A., 281.
- Conner, *S. D.*, soil acidity, B., 308.
- Connon, *G. W.*, evaporating and heating systems in cane [sugar] factories, B., 537.
- Connor, *R. J.* See Shoesmith, *J. B.*
- Conrad, *C. M.* See Appleman, *C. O.*
- Conrad, *R.*, and Koenigberger, *J.*, scattering of canal rays in hydrogen, A., 493.
- Conrad, *W. L.*, conditioning [bleaching] textiles, (P.), B., 627.
- Consiglio, *G.*, chlorine gas process in the paper industry, B., 276.
- Consolidated Textile Corporation. See Bennett, *J.*

- Consortium für Elektrochemische Industrie G.m.b.H., manufacture of acetals, (P.), B., 379, 541.
 manufacture of acetaldehyde, (P.), B., 541.
 manufacture of polymerised vinyl esters, (P.), B., 823.
- Consortium für Elektrochemische Industrie, Deutsch, H., Haehnel, W., and Herrmann, W. O., preparation of artificial resin, (P.), B., 228.
- Consortium für Elektrochemische Industrie, Deutsch, H., and Herrmann, W. O., preparation of linnoxyn-like substances, (P.), B., 305.
- Consortium für Elektrochemische Industrie, Herrmann, W. O., and Haehnel, W., stabilisation of colloidal systems, (P.), B., 624.
- Consortium für Elektrochemische Industrie. See also Herrmann, W. O., Meingast, R., and Mudgan, M.
- Consortium für Nassmetallurgie, purifying plumbiferous chloride liquors, (P.), B., 107.
- Constable, F. H., initial stages of dehydrogenation and isomeric change of allyl alcohol, A., 27.
 surface adsorption and velocity of chemical action at gas-solid interfaces, A., 322.
 new method of measuring the absolute surface area of a metallic catalyst, A., 322.
 sintering of active copper catalysts, A., 839.
 cause of the colours shown during the oxidation of metallic copper, A., 930.
 effect of continued small additions of poisonous substances on the velocity of gaseous catalytic reaction in closed vessels, A., 945.
- Constant Co., C. L. See Stewart, A.
- Constantinides, P. A., ionisation phenomena in active nitrogen, A., 188.
 electrical properties and nature of active nitrogen, A., 916.
- Contact Filtration Co. See Chappell, M. L., and Prutzman, P. W.
- Conti, E., solder for aluminium and its alloys, (P.), B., 338*.
- Continentrale Akt.-Ges. für Chemie, still for distillation of fatty acids, (P.), B., 258.
 briquetting sublimed ammonium chloride, (P.), B., 814.
- Continentrale Akt.-Ges. für Chemie, and Gerngross, O., production of ammonium chloride and alkali sulphate, (P.), B., 778*.
- Continentrale Akt.-Ges. für Chemie, and Tern, R., condensation apparatus for preparation of pale fatty acids, (P.), B., 531.
- Continentrale Prodorit Akt.-Ges., pitch cement, (P.), B., 254.
- Continsouza, M. See Hesselwitz, B.
- Contzen, J. See Popp, M.
- Coode-Adams, W. R. C. See Lowry, T. M.
- Cook, A. M. R. See Read, J.
- Cook, H. L., solubility of enamel frit in mill water, B., 630.
 effect of various electrolytes when added to enamel suspensions made with and without clay, B., 630.
- Cook, J. W. See Barnett, E. de B.
- Cook, N. G. See Gibbons Brothers, Ltd.
- Cook, S. F., rôle of certain metallic ions as oxidation catalysts, A., 28.
- Cook, W. R. See Hassé, H. R., and Lennard-Jones, J. E.
- Cook, W. T., and Jones, W. R. D., copper-magnesium alloys, II, B., 817.
- Coolbaugh, M. F., and Read, J. B., [production of sulphur compounds from ores containing] sulphur, (P.), B., 877.
- Cooley, R. F. B. See McLennan, J. C.
- Coolidge, A. S., adsorption of water vapour by charcoal, A., 406.
 adsorption of mercury vapour by charcoal, A., 928.
- Coolidge, A. S., and Coolidge, (Miss) M. S., sublimation pressures of substituted quinones and quinols, A., 195.
- Coolidge, E. N. C. See Goodyear Tire & Rubber Co.
- Coolidge, J. R., and Montan, Inc., impregnation of wood, (P.), B., 939*.
- Coolidge, J. R. See also Montan, Inc.
- Coolidge, (Miss) M. S. See Coolidge, A. S.
- Coolidge, T. C. See Bock, A. V.
- Coolidge, W. D., and Moore, C. N., experiments with high-voltage cathode rays outside of the generating tube, A., 85.
- Coombs, E. See Grimble, F.
- Coombs, H. I., micro-determination of metals in salts, A., 535.
 sulphur metabolism of the dog. VII. Effect of fluorobenzene on sulphur metabolism, A., 696.
- Coombs, H. I., and Hele, T. S., sulphur metabolism of the dog. VI. Metabolism of the pig and dog compared, A., 695.
- Cooney, R. K., and Campbell-Cooney Patents Co., cream-treating process, (P.), B., 26, 377*.
 butter and cream-treating process, (P.), B., 376, 377*.
- Coons, C. C. See Rodebush, W. H.
- Cooper, A. W. See Ljungdahl, W. K.
- Cooper, C., Henshaw, D. M., and Holmes & Co., Ltd., W. C., prevention of corrosion in the manufacture of fuel gases, (P.), B., 182*.
 separation of water from mixtures of steam and vapours of benzene, toluene, and like hydrocarbons, (P.), B., 646.
 separation of water from mixtures of ammonia and water vapour, (P.), B., 652.
 drying of fuel gas, (P.), B., 695.
- Cooper, C. J., and Mason, A. M., (Cooper & Co., C. J.), mixing or pugging mill, (P.), B., 800.
- Cooper, B. A., and Nicholas, S. D., chemical action of *p*-quinones on proteins, B., 382.
- Cooper, B. A., and Read, W. H., dissolved oxygen absorption test [of sewage], B., 381, 894.
 chemical oxidation of the constituents of sewage; action of hydrogen peroxide, B., 381.
- Cooper, B. A., and Sanders, E., relations of phenol to proteins and other colloids; disinfectant action, A., 203.
- Cooper, H. M., and Osgood, F. D., comparison of vitreosil, illium-alloy, and platinum crucibles for determination of volatile matter in coal, B., 130.
- Cooper, H. S., and Kemet Laboratories Co., Inc., alloy, (P.), B., 169.
- Cooper, K. E., and Ingold, C. K., alternating effect in carbon chains. XVI. Directive action of some groups of the form -COR in aromatic substitution, A., 558.
- Cooper, K. F., and American Cyanamid Co., producing [pure] heavy-metal cyanides [from crude cyanides], (P.), B., 251.
- Cooper, R. B. See Brown, R. L.
- Cooper Hewitt Electric Co. See Clover, C. R.
- Coops, J. See Verkade, P. E.
- Coops, J., jun. See Cohen, E.
- Cope, F. T., Benzinger, R. F., and Electric Furnace Co., electric furnace, (P.), B., 943.
- Cope, F. T., and Electric Furnace Co., electric furnace, (P.), B., 416.
 recuperative [electric] furnace, (P.), B., 943.
- Copeland, L. C. See Bichowsky, F. R.
- Copeman, D. A., determination of azides, B., 926.
- Copeman, P. R. v.d. R., and Frater, G., physical and chemical changes during the ripening of grapes, A., 908.
- Copisarow, M., Liesegang phenomenon and stratification, A., 199.
 mineral components of organised matter, A., 690.
- Coplands, M., and Green, A. G., chemotherapy. I. Physiological action of leuco-dyes of the triphenylmethane series, A., 172.
 chemotherapy. II. Internal antiseptics by means of sulphato-compounds, A., 1220.
- Copley, J. C., Murdock, W. J., Lungren, E. E., and Evans, O. B., apparatus for and process of manufacture of combustible gas, (P.), B., 246*.
- Coppée & Cie, E., coke oven, (P.), B., 721.
- Copper Separation, Ltd., and Nevill, P. W., sponge iron, (P.), B., 336.
- Corbellini, A., action of chlorosulphonic acid on naphthalene, A., 551.
 action of chlorosulphonic acid on α - and β -naphthylamines, A., 1179.
- Corbet, A. S., phase-rule study of the zinc-, cadmi-, mercuri-, and nickel-cyanides of potassium, A., 112.
- Corbet, A. S., and Jameson, A. P., toxicity of phenylarsinic acids for *Balanitidium coli*, Malm., in cultures in relation to their chemical constitution, A., 900.
- Corbet, G. See Boutaric, A.
- Corbett, S. M., preparation of pineapple stock food, (P.), B., 171.
- Corbino, O. M., electrolysis without electrodes, A., 523.
 electronic theory of the voltaic cell, A., 1144.
- Corbould, W. J., hydrometallurgical treatment of oxide products of lead and zinc, or oxidised lead ores containing zinc, or mixed oxidised or sulphide ores of lead and zinc, to obtain therefrom separate metals or concentrated products of lead or of zinc, (P.), B., 658.
- Cordier, V., action of sodium hypobromite on derivatives of carbamide and guanidine. III, A., 138.
- Corey, R. B., solubility of chromic hydroxide in alkalis, A., 820.
- Corey, R. B., and Rogers, H. W., reaction of "aluminon" with hydroxides of scandium, gallium, indium, thallium, and germanium, A., 219.

- Cori, *C. F.*, and Cori, *G. T.*, fate of sugar in the animal body. IV. Tolerance of normal and insulin-treated rats for dextrose and levulose. V. Seasonal ketonuria in fasting rats, *A.*, 593.
fate of sugar in the animal body. VII. Carbohydrate metabolism of adrenalectomised rats and mice, *A.*, 1106.
- Cori, *C. F.* See also Cori, *G. T.*
- Cori, *G. T.*, and Cori, *C. F.*, fate of sugar in the animal body. VI. Sugar oxidation and glycogen formation in normal and insulin-treated rats during absorption of levulose, *A.*, 790.
- Cori, *G. T.* See also Cori, *C. F.*
- Cork, *J. M.*, James, *C.*, and Fogg, *H. C.*, concentration and identification of the element of atomic number 61, *A.*, 190.
- Corley, *R. C.*, metabolism of lactose. I. Fate of intravenously administered galactose in the rabbit. II. Effect of dextrose and galactose on fate of galactose in the rabbit, *A.*, 897.
- Corn Products Refining Co., manufacture of starch, (*P.*), *B.*, 888.
- Corn Products Refining Co., and Newkirk, *W. B.*, production of dextrose from starch-bearing materials, (*P.*), *B.*, 122.
production of crystalline dextrose from starch-bearing materials, (*P.*), *B.*, 234.
- Cornec, *E.*, and Dickely, *J.*, sodium perchlorate solutions, *A.*, 723, 932*.
- Cornec, *E.*, and Klug, *P.*, crystallisation of saturated solutions at the b. p.; method of physico-chemical analysis, *A.*, 731.
physico-chemical analysis by ebullition of saturated solutions, *A.*, 1020.
- Cornelius, *C. E.*, electric furnace for melting or producing glass, water-glass, Portland cement, aluminous cement, etc., (*P.*), *B.*, 303.
- Cornelius, *H. G. E.*, production of iron or other metals which combine with carbon, or alloys of such metals, (*P.*), *B.*, 193.
iron alloys having little tendency to rust, (*P.*), *B.*, 194.
production of iron and other carbon-binding metals and alloys thereof having a very low percentage of carbon, (*P.*), *B.*, 448.
production of dense iron and iron alloys directly out of oxide ores, (*P.*), *B.*, 527.
- Cornillot, *A.*, tautomerism in the phthalonic and phthalide-carboxylic acids, *A.*, 562, 1069.
- Corning Glass Works, manufacture of glass or quartz transparent to ultra-violet light, (*P.*), *B.*, 141.
refractory articles or castings, (*P.*), *B.*, 253*.
- Corning Glass Works. See also Fulcher, *G. S.*, and Taylor, *W. C.*
- Cornog, *J.*, Dargan, *W.*, and Bender, *P.*, formation of sulphur trioxide during the burning of sulphur, *A.*, 32.
- Cornubert, *R.*, action of sodamide on cyclohexanone, *A.*, 666.
cycloanones and the ketonic function, *A.*, 666.
 α -trimethyl- and tetramethyl-cyclohexanones; separation of ketones by fractional oximation, *A.*, 878.
- Cornubert, *R.*, and Le Bihan, *H.*, condensation of cyclohexanones with aromatic aldehydes; alkylation of cyclohexanones, *A.*, 1075.
- Cornubert, *R.* See also Haller, *A.*
- Cornwell, *R. T. K.*, and Esselstyn, *A. J.*, thymoltetrachlorophthalcin and some of its derivatives, *A.*, 458.
- Correa, *L. M.* See Roffo, *A. H.*
- Corscaden, *J. A.* See Sharlit, *H.*
- Corson, *M. G.*, copper-beryllium alloys, *B.*, 281.
copper alloys, (*P.*), *B.*, 415.
- Corson, *M. G.*, and Electro Metallurgical Co., manufacture of a [non-tarnishing] silver-silicon alloy, (*P.*), *B.*, 913.
- Cortese, *D.* See Scurti, *F.*
- Cortese, *F.* See Norris, *J. F.*
- Coslett, *T. W.*, treatment of iron or steel for preventing oxidation or rusting, (*P.*), *B.*, 116*.
- Costa, *D.*, resistance of cellulose to heat and its absorptive power for gases. I. and II., *B.*, 137.
- Coste, *J. H.*, solubility of pure and atmospheric nitrogen in distilled- and sea-water, *A.*, 197.
- Coste, *J. H.* See also Butler, *W.*
- Costeanu, *G. I.*, alkali and alkaline-earth hexabromostannates [Rb_2SnBr_6 , Cs_2SnBr_6 , and $\text{BaSnBr}_6 \cdot 10\text{H}_2\text{O}$], *A.*, 741.
organic compounds of tin tetrabromide, *A.*, 1179.
- Coster, *D.*, and Druyvesteyn, *M. J.*, satellites of lines of X-rays, *A.*, 179.
- Coster, *D.*, Hevesy, *G. von*, and Naaml. Vennoots. Philips' Gloeilampenfabr., separation of zirconium and hafnium, (*P.*), *B.*, 370.
- Cotes, *H. J.* See British Glues & Chemicals, Ltd.
- Cothay, *F. H.*, and Ropp Tin, Ltd., [apparatus for the] gravity concentration of ores, (*P.*), *B.*, 116*.
- Cotonio, *M.* See Davenport, *H. A.*, and Friedemann, *T. E.*
- Cotton, *G. D.*, manufacture of paving bricks and other ceramic products, (*P.*), *B.*, 780.
- Cotton, *R. T.*, and Roark, *R. C.*, dichloroethane-carbon tetrachloride mixture; a new non-burnable, non-explosive fumigant, *B.*, 862.
- Cotton, *W.*, and Grasselli Dyestuff Corporation, production of fast-coloured discharges on fast dyeings, (*P.*), *B.*, 965*.
- Couch, *J. F.*, isolation of nicotine from *Nicotiana attenuata*, Torr., *B.*, 891.
- Couderc, *A.* See Vavon, *G.*
- Coulier, *S.*, manufacture of alkali cyanides, (*P.*), *B.*, 251.
- Coulson, *E. A.* See Chattaway, *F. D.*
- Coultais, *W. L., jun.*, treating hydrocarbon oils, (*P.*), *B.*, 516.
- Coulter, *C. B.*, measurement of hæmolysin, *A.*, 477.
protein associated with hæmolysin in rabbit-serum and -plasma, *A.*, 477.
- Coulter, *C. D.* See Millard, *R. B.*
- Courmont, *H.*, chromo-lithographic transfers, (*P.*), *B.*, 305.
- Cournot, *J.*, and Bary, *J.*, electrolytic deposits of cadmium for the protection of metals and alloys against corrosion, *B.*, 910.
- Cournot, *J.*, Bary, *J.*, and Pérot, *E.*, coating of aluminium, magnesium, and light and ultra-light alloys, *B.*, 489.
- Cournot, *J.*, and Pagès, *R.*, viscosity of copper and its alloys, *A.*, 13.
viscosity [of copper, brass, and bronze] at high temperatures, *B.*, 112.
- Cournot, *J.*, and Pérot, *E.*, cementation of aluminium by copper, *B.*, 167.
cementation of aluminium and duralumin after double electrolytic deposition, *B.*, 559.
- Cournot, *J.*, and Silva, *M. S.*, viscosity of nickel, aluminium, and light alloys, *A.*, 1019.
- Court, *A. H.* See Health Products Corporation.
- Courtaulds, Ltd., and Diamond, *C.*, esterification of cellulose, (*P.*), *B.*, 473.
- Courtaulds, Ltd., Glover, *W. H.*, and Diamond, *C.*, manufacture of cellulose derivatives, (*P.*), *B.*, 473.
- Courtaulds, Ltd., Glover, *W. H.*, and Heaven, *G. S.*, manufacture of filaments of artificial silk or the like from viscose, (*P.*), *B.*, 649.
- Courtaulds, Ltd., Glover, *W. H.*, and Topham, *C. F.*, production of artificial silk, (*P.*), *B.*, 472.
- Courtaulds, Ltd., Hegan, *H. J.*, and Hazeley, *E.*, manufacture of threads, filaments, etc. from viscose, (*P.*), *B.*, 745.
- Courtaulds, Ltd., and Lewis, *F. D.*, manufacture of artificial threads, filaments, etc., (*P.*), *B.*, 934.
- Courtaulds, Ltd., Shedden, *F.*, Delph, *A. E.*, and Baguley, *N. G.*, production of artificial silk [by the dry-spinning process] and apparatus therefor, (*P.*), *B.*, 964.
- Courtaulds, Ltd., and Topham, *C. F.*, manufacture of artificial threads, etc. and apparatus therefor, (*P.*), *B.*, 935.
- Courtaulds, Ltd. See also Clément, *L.*, and Glover, *W. H.*
- Courtenay, *C. E.* See Spence, *J.*
- Courtenay, *H. A.* See Spence, *J.*
- Courtot, *C.*, and Vignati, *C.*, fluorene series, *A.*, 234, 348, 654.
- Courtot, *C.* See also Compagnie Nationale de Matières Colorantes et Manuf. de Prod. Chim. du Nord Réunis, Établ. Kuhlmann.
- Cousen, *A.*, and Turner, *W. E. S.*, commercial sillimanite in glass works, *B.*, 219.
- Couvée, *W. J.*, temperature correction in volumetric analysis, *A.*, 34.
- Covello, *M.*, and Gabrieli, *R.*, trisuccinylpicramine, *A.*, 1181.
- Coven, *A. W.* See Jauncey, *G. E. M.*
- Coward, *H. F.*, and Jones, *G. W.*, mechanism of the uniform movement in the propagation of flame, *A.*, 318.
- Coward, *H. F.*, Jones, *G. W.*, Dunkle, *C. G.*, and Hess, *B. E.*, explosibility of methane and natural gas, *A.*, 834.
- Coward, *H. F.*, and Meiter, *E. G.*, chemical action in the electric spark discharge; ignition of methane, *A.*, 318.
- Coward, *K. H.*, influence of light and heat on formation of vitamin-A in plant tissues, *A.*, 595.
- Coward, *K. H.* See also Steenbock, *H.*
- Cowdery, *A. B.* See Barrett Co.
- Cowen, *L. G.* See Finch, *G. I.*
- Cowgill, *G. R.* See Standish, *W. A.*
- Cowles, *H. C., jun.* See Henderson, *L. M.*
- Cowles Engineering Corporation, washing or dyeing machine, (*P.*), *B.*, 553.

- Cowley, *J. F.* See Taylor, *T. W. J.*
 Cowperthwaite, *I. A.*, thermostat heater, A., 1048.
 Cowperthwaite, *I. A.* See also MacInnes, *D. A.*
 Cox, *C. B.* See Prideaux, *E. B. R.*
 Cox, *C. H.*, analysis of cotton seed, B., 584.
 Cox, *C. H.* See also Brodie, *R. K.*
 Cox, *E. H.*, action of anhydrous aluminium chloride on tolyl benzoates, A., 565.
 Cox, *H. E.*, sulphur dioxide in malt vinegar, B., 613.
 Cox, *H. L.*, Nelson, *W. L.*, and Cretcher, *L. H.*, reciprocal solubility of the normal propyl ethers of α - β -propylene glycol and water; closed solubility curves, II, A., 509.
 Cox, *K.*, and McDermott, *P. J.*, purification of benzol, petrol, and the like, (P.), B., 436.
 Cox, *M. V.* See Hill, *A. J.*
 Coyle, *F. B.*, properties and heating treatment of cast iron, B., 967.
 Cozens, *F. G.*, and Metallisation, Ltd., coating of materials by metal spraying, (P.), B., 970.
 Crabb, *C. L.*, [machine for] cleaning clay, (P.), B., 815.
 Craig, *D.* See Coleman, *G. H.*
 Craig, *E.* See Binns, *C. F.*
 Craig, *E. H. C.*, jet and jetonised material, B., 721.
 Craig, *N.*, and Giraud, *F.*, reversion of nitrates in the soil under cultural conditions in Mauritius, B., 343.
 Cranfield, *H. T.*, Griffiths, (*Miss*) *D. G.*, and Ling, *E. R.*, composition of milk. I. Variation in solids-not-fat, fat, and protein of cow's milk, and their relationship, B., 235.
 composition of milk. II. Variation in percentage of mineral constituents in cow's milk, and their relationship with solids-not-fat and protein content, B., 235.
 Crapetta, *C.* See Mazza, *F. P.*, and Migliacci, *D.*
 Cravath, *A. M.* See Loeb, *L. B.*
 Craven, *A. B.*, Bedford, *C. S.*, and Yorkshire Dyeware & Chemical Co., Ltd., manufacture of a cement suitable for linoleum, etc., (P.), B., 756.
 Craven, *A. B.*, and Yorkshire Dyeware & Chemical Co., Ltd., manufacture of a solid resin from the semi-fluid resinous matter extracted from crude gutta-percha and/or balata, (P.), B., 948.
 Craven, *E. C.* See Ormandy, *W. R.*
 Craven, *V. C.*, and Kramer, *M. M.*, vitamin-C content of fresh and canned pear, B., 638.
 Craver, *A. E.*, and Barrett Co., production of aromatic aldehydes, (P.), B., 764*.
 catalytic oxidation of aromatic hydrocarbons, (P.), B., 764*.
 production of anthraquinone, (P.), B., 771.
 production of acetaldehyde, (P.), B., 796.
 production of maleic acid, (P.), B., 796.
 Crawford, *A.*, and Crawford, *J.*, process for treating blast-furnace slag and the like, (P.), B., 80.
 Crawford, *E. M.* See MacIntire, *W. H.*
 Crawford, *F. H.* See Kemble, *E. C.*
 Crawford, *G. E.*, and American Dresser Tunnel Kilns, Inc., kiln for glass melting, etc., (P.), B., 366.
 Crawford, *J.* See Crawford, *A.*
 Crawford, *J. W. C.*, and Kenyon, *J.*, constitution of carnitine. I. Synthesis of α -hydroxy- γ -butyrotetramethylbetaine, A., 343.
 Crawford, *J. W. C.*, and Willson, *F. G.*, production of hydroxy-compounds [from primary amines], (P.), B., 772.
 Crawford, *R. E.* See Horn, *D. W.*
 Crawford, *R. M.*, elimination and recovery of phenols from crude ammonia liquors, B., 179.
 Crawford, *S. L.*, food compound, (P.), B., 123.
 Crawford, *W. P.*, weissite: a new mineral, A., 538.
 Cregan, *J. F.*, and American Smelting & Refining Co., recovery of zinc oxide from furnace gases; manufacture of zinc oxide, (P.), B., 632.
 Gregor, *N. M.*, and Ward Baking Co., process for making food products, (P.), B., 827.
 Creighton, *H. J.*, and Anti-Scale Corporation, method and apparatus for counteracting scaling and corrosion, (P.), B., 168.
 Creighton, *H. J.*, and Atlas Powder Co., electrolytic reduction of sugars to alcohol, (P.), B., 234.
 Cremer, *E.*, reaction between chlorine, hydrogen, and oxygen in light, A., 947.
 Cremer, *E.*, and Fetkenheuer, *B.*, separation of chromium, tungsten, molybdenum, and vanadium and application of the method to the analysis of stellite alloys, B., 704.
 Cremieu, *V.*, apparatus for cooling by the expansion of gases, (P.), B., 671.
 Cremona, *A.* See Mazza, *F. P.*
 Crennell, *J. T.* See Lea, *F. M.*
 Crespi, *M.*, adsorption of gases by glass walls. IV. Methyl chloride and oxygen, A., 406.
 Cretcher, *L. H.* See Cox, *H. L.*, and Hedenburg, *D. F.*
 Crew, *W. H.*, effect of light on the electron emission from hot filaments, A., 85.
 Crew, *W. H.*, and Hulburt, *E. O.*, continuous spectrum of hydrogen, A., 81.
 number of radiating atoms in a hydrogen discharge tube, A., 710.
 Crippa, *G. B.*, metallic derivatives of azo-compounds, A., 1063.
 Crippa, *G. B.* [with Castelli, *P.*], action of nitrobenzene on aromatic diamines, A., 352.
 Crippa, *G. B.* [with Venturini, *G.*], metallic complexes [co-ordination compounds] of arylazophenanthrols, A., 1180.
 Crippa, *G. B.* [with Vigevani, *E.*], nickel and cobalt arylazo- β -naphthylamine compounds, A., 352.
 Crippa, *G. B.*, and Castelli, *P.*, condensation of nitrobenzene with *o*-phenylenediamine, A., 1205.
 Crist, *D. M.*, process of metallising ores and recovery of metals and by-products, (P.), B., 785*.
 Crist, *J. W.* See Dye, *M.*, Ezell, *B. D.*, and Morris, *L. S.*
 Crist, *R. H.* See Morgan, *J. L. R.*
 Crittenden, *E. D.* See Almquist, *J. A.*
 Crockatt, *W. C.* See Crockatt & Sons, Ltd., W.
 Crockatt & Sons, Ltd., W., and Crockatt, *W. C.*, [electrolytic] means for indicating the presence of saline, alkaline, and acid impurities in water and other fluids, (P.), B., 303.
 Croese, *D.*, manufacture of metals and alloys in the electric furnace, (P.), B., 302, 820*.
 Crofts, *W.*, commercial production of carbon-free chromium or ferrochrome by leaching from the ore and electrolysis, B., 487.
 Crommelin, *C. A.*, and Gibson, *R. O.*, vapour pressures of solid and liquid neon, A., 927.
 Cromwell, *J. H.* See Dover, *M. V.*
 Cromwell & Murray Co., and McCormack, *C. P.*, beneficiation of [iron] ores, (P.), B., 726*.
 Croner, *F.*, determination of the acetyl value [of fats], B., 850.
 Cronshaw, *C. J. T.*, Naunton, *W. J. S.*, and British Dyestuffs Corporation, vulcanisation of rubber, (P.), B., 452*.
 manufacture of diarylguanidines, (P.), B., 797*.
 Cronshaw, *C. J. T.* See also British Dyestuffs Corporation.
 Crosby, *H. A.*, gold-saving device, (P.), B., 224.
 Crosland, *E. M.* See Vicars, Ltd., T. & T.
 Cross, *C. F.*, treatment of cellulose hydrate, (P.), B., 104*.
 Cross, *C. F.*, and Engelstad, *A.*, manufacture of new products comprising lignone derivatives, (P.), B., 185.
 Cross, *C. L.*, colouring of glass [containing manganese] in ultra-violet light, A., 1005.
 Cross, *E. J.*, and Perkin, *A. G.*, reduction products of the hydroxy-anthraquinones. VIII, A., 771.
 Cross, *R.*, method of treating petroleum, (P.), B., 357.
 producing mixed phenols and related compounds [from coal tar], B., 807.
 method of treating coffee, (P.), B., 827.
 Cross, *R.*, and Gasoline Products Co., conversion of petroleum hydrocarbons, (P.), B., 403.
 manufacture of motor fuel, (P.), B., 548.
 coking still, (P.), B., 769.
 Cross, *W. M.*, method and apparatus for treating petroleum hydrocarbons, (P.), B., 323.
 Cross, *W. M.*, and Gasoline Products Co., treatment of hydrocarbons, (P.), B., 578.
 conversion [cracking] of oil, (P.), B., 868.
 treatment of petroleum hydrocarbons, (P.), B., 961.
 Crossley, *M. L.*, and Calco Chemical Co., [magnesium] salt of a quinolinecarboxylic acid, (P.), B., 349.
 Crossley, *M. L.*, Dolt, *M. J.*, and Calco Chemical Co., manufacture of salts of 2-phenylquinoline-4-carboxylic acid, (P.), B., 860.
 Crossley, *T. L.*, comparing the cleanliness of sulphite pulps, B., 675.
 Crossman, *F. M.*, manufacture of fuel agglomerates and their binders, (P.), B., 98.
 drying apparatus for briquettes and other agglomerates, (P.), B., 693.
 Crotochino, *F.*, solubility rule, A., 105.
 Crotochino, *H.* See Hölzl, *F.*
 Crouter, *V.* See Cajori, *F. A.*
 Crowe, *G. W.* See Sargent, *A. M.*

- Crowe, *M.*, temperature coefficients of electrical conductivity for concentrated solutions of calcium chloride, with precision measurements of conductivity for the higher concentrations, *A.*, 831.
- Crowe, *P. L.*, ball mill, (*P.*), *B.*, 511.
- grinding and separating apparatus, (*P.*), *B.*, 799.
- Crowe, *W. H.* See Mullen, *R. T.*
- Crowell, *W. S.*, physical chemistry of dental cements, *B.*, 955.
- Crowthier, *E.*, [bridge for] furnaces, (*P.*), *B.*, 208.
- Crowthier, *E. M.*, direct determination of distribution curves of particle size in suspensions, *B.*, 351.
- quinhydrone electrode method of hydrogen-ion concentration measurements, *B.*, 856.
- Crowther, *J. A.*, and Fairbrother, *J. A. W.*, action of *X*-rays on colloids, *A.*, 935.
- Croy, *O. R.*, production of an aluminium solder, (*P.*), *B.*, 144.
- Croze, *F.*, and Gilles, *J.*, structure of the second order spectrum of nitrogen (*N II*), *A.*, 489.
- Croze, *F.*, and Mihul, *C.*, abnormal multiplets and inter-combinations in the spectrum of *O II*, *A.*, 1117.
- Crozier, *W. D.* See Stewart, *G. W.*
- Crucible Steel Co. of America. See Johnson, *C. M.*
- Cruess, *W. V.*, and El Nouty, *A. H.*, preservation of fruits in sulphurous acid solutions, *B.*, 890.
- Cruess, *W. V.*, and Fong, *W. Y.*, oxidising systems of fruits, *B.*, 590.
- Cruickshank, *J. N.*, chemical aspects of the toxæmias of pregnancy, *A.*, 1217.
- Cruickshank, *W. K.*, pulverising machine, (*P.*), *B.*, 767.
- Crump, *J. W.* See Potter, *H. V.*
- Crundall, *S. F. W.* See Spence & Sons, Ltd., *P.*
- Cruz, *A. O.* See Perkins, *G. A.*
- Csaby, *J.* See Zechmeister, *L.*
- Csik, *L.*, and Jubász, *A.*, determination of blood-sugar by the method of Hagedorn and Jensen, *A.*, 787.
- Csik, *J. von*, reaction and degree of saturation of soils, *B.*, 728.
- Csonka, *F. A.*, glutelins. III. Glutelin of oats (*Avena sativa*), *A.*, 1227.
- Csonka, *F. A.*, and Jones, *D. B.*, glutelins. I. α - and β -Glutelins of wheat, *A.*, 799.
- Csonka, *F. A.* See also Jones, *D. B.*
- Ctyroky, *V.*, decomposition of the invert sugar by lime [in the defecation of beet raw juices], *B.*, 638.
- Cürten, *T.* See Ansehütz, *R.*
- Culhane, *K.*, variations in the serum-calcium of rabbits, *A.*, 904.
- Culpepper, *C. W.*, and Caldwell, *J. S.*, behaviour of the anthocyan pigments in canning, *B.*, 973.
- Cumberland, *E.*, prevention of corrosion [due to stray currents], (*P.*), *B.*, 882.
- Cumming, *W. M.*, identification of alkaloids, *A.*, 785*.
- Cundall, *K. N.*, recovery of sulphur from gas, *B.*, 322.
- Cunliffe, *P. W.*, and Farrow, *F. D.*, photographic method of investigating the colour of light sources, and the reflecting power of coloured fabric and other surfaces, *B.*, 871.
- Cunliffe, *P. W.* See also Allmand, *A. J.*
- Cunningham, *A.*, and Jenkins, *H.*, studies on *Bacillus amylobacter*, *A.M. et Bredemann*, *B.*, 232.
- Cuno, *G. W.*, mass law in the manufacture of nitric acid, *B.*, 72.
- Cupit, *G. W.*, catalysts and their effects on the oxidation of mineral oils, *B.*, 960.
- "Cupram" A.-G., recovery of ammonia from cuprammonium precipitation baths, (*P.*), *B.*, 964.
- Cuprum (Société Anonyme), artificial silk, (*P.*), *B.*, 185.
- Curjel, *W. R. C.* See Chattaway, *F. D.*
- Curme, *G. O., jun.* See Carbide & Carbon Chemicals Corporation.
- Curtaz, *K.* See Mannich, *C.*
- Curtin, *L. P.*, wood preservation. I. Production of acid by wood-rotting fungi, *B.*, 750.
- wood preservation. II. Arsenites of copper and zinc. III. Preservative properties of basic substances, *B.*, 909.
- Curtin, *L. P.*, and Bogert, *M. T.*, wood preservation. IV. Preservative properties of chlorinated coal tar derivatives, *B.*, 938.
- Curtin, *L. P.*, and Western Union Telegraph Co., preservation of wood, (*P.*), *B.*, 367.
- wood preservative, (*P.*), *B.*, 525.
- Curtis, *H. A.*, and Beekhuis, *H. A.*, tar from a commercial low-temperature retort, *B.*, 68.
- Curtis, *H. L.*, McPherson, *A. T.*, and Scott, *A. H.*, density and electrical properties of the system rubber-sulphur. II. Electrical properties of rubber-sulphur compounds, *B.*, 916.
- Curtius, *T.* See Bertho, *A.*
- Cusmano, *G.*, dehydrogenation of menthol, *A.*, 155.
- Cuthbertson, *C.*, absorption of radiation in the extreme ultra-violet by the inert gases, *A.*, 499.
- relation between refractive and dispersive constants of inert gases, *A.*, 499.
- Cutler, *T. H.*, temperature developed in high-alumina concrete, *B.*, 702.
- Cutler-Hammer Manufacturing Co., processes for forming moulded [insulation] products, (*P.*), *B.*, 257.
- Cutler-Hammer Manufacturing Co. See also Cherry, *O. A.*, Evans, *C. T.*, and Packard, *H. N.*
- Cuy, *E. J.*, ionic sizes and their relationship to crystal structure type, solid solution, and double salt formation and the stabilities of hydrates and ammoniates, *A.*, 191.
- Cuypers, *J.*, rotary drums for drying materials, (*P.*), *B.*, 176.
- Cyr, *H. M.*, pure zinc, *B.*, 390.
- Czapek, *E.*, dyeing films, plates, and other non-fibrous articles constructed of cellulose, (*P.*), *B.*, 553.
- Czapek, *E.*, and Weingand, *R.*, production of film-like bands from cellulose solutions and similar initial materials, (*P.*), *B.*, 775*.
- Czapek, *E.* See also Wolff & Co.
- Czerny, *M.*, rotation spectra of the hydrogen halides, *A.*, 917.
- Czerski, *T.* See Lésniański, *W.*
- Czike, *A.* See Jendrassik, *L.*
- Czochralski, *J.*, silumin; mechanism of the "modification" process, *B.*, 168.
- Czochralski, *J.*, and Allied Process Corporation, aluminium alloy containing lithium, (*P.*), *B.*, 705.
- Czochralski, *J.*, and Rassow, *E.*, binary alloys of lead with up to 2.2% of lithium, *A.*, 418.
- Czochralski, *J.*, Welter, *G.*, and Allied Process Corporation, alloy of lithium and aluminium, (*P.*), *B.*, 338*.

D.

- Daamen, *N. P. J.* See Waterman, *H. I.*
- Dabisch, *H.*, analysis of cellulose ester varnishes, *B.*, 418.
- Dacos, *F.*, specific inductive capacity of phosphorescent substances, *A.*, 497.
- Dadieu, *A.*, electromotive behaviour of aluminium, *A.*, 210.
- Dadlez, *J.*, production of ozone in air by ultra-violet rays, *A.*, 738.
- proportion of nitrous vapours in the neighbourhood of arc lamps, *A.*, 955.
- Dadswell, *H. E.*, and Kenner, *J.*, influence of nitro-groups on the reactivity of substituents in the benzeno nucleus. IX. 2:3- and 2:5-Dinitro-4-methoxytoluenes, *A.*, 456.
- basic character of acetoxylicides and its influence on the course of their substitution, *A.*, 655.
- Dällenbach, *W.*, production of chemically pure coatings of carbon on the electrodes of vacuum discharge vessels, more especially mercury vapour rectifiers, (*P.*), *B.*, 820.
- Daevs, *K.*, resistance of steel containing copper to atmospheric corrosion, *B.*, 111.
- Dagnino, *A.* See Garino, *M.*
- Dahl, *N.*, apparatus for the production of freezing liquid, (*P.*), *B.*, 801.
- Dahl-Rode, *S.* See Cochrane Corporation.
- Dahlberg, *A. C.*, Holm, *G. E.*, and Troy, *H. C.*, comparison of the Babcock, Gerber, and Roese-Gottlieb methods for determining fat in milk and cream, *B.*, 890.
- Dahlberg, *H. W.* See Mott, *C.*
- Dahlberg & Co., Inc. See Lathrop, *E. C.*
- Dahle, *C. E.* See Dutcher, *R. A.*
- Dailey, *M. E.* See Bock, *A. V.*, and Fremont-Smith, *F.*
- Daily, *C. R.* See Mott-Smith, *L. M.*
- Daimler, *K.* See I. G. Farbenind. A.-G.
- Dakin, *H. D.* See Newton, *E. B.*
- Dale, *A. J.*, testing refractory materials for resistance to slag corrosion and erosion, *B.*, 442.
- Dale, *A. J.* See also Green, *A. T.*
- Dale, *H. E.*, analysis of jalap, *B.*, 955.
- Dale, *H. H.* See Best, *C. H.*
- Dale, *J. E.* See Sherman, *H. C.*
- Dale, *R. B.*, casting high-melting point metals, (*P.*), *B.*, 819.
- Dale, *R. T.*, and Nierenstein, *M.*, action of diazomethane on aromatic acyl chlorides. IV. Reaction products from the three nitrobenzoyl chlorides, *A.*, 564.

- Dalen, G., and American Gasacemulator Co., production of a porous mass for storing explosive gases, (P.), B., 358*.
- Dales, L. J., production of carbon black, (P.), B., 769.
- Dalla Volta, sulphurous compounds of haemoglobin, A., 892.
- Daloze, R., production of lead oxide or carbonate from lead sulphate, (P.), B., 481.
production of lead sulphate, (P.), B., 580.
manufacture of pure lead carbonate from crude lead sulphate, (P.), B., 748.
- Dalton, M. P. See Owen, T. M.
- Dalton, R. H., and Baxter, W. P., velocity distribution of electrons issuing from small holes, A., 287.
- Dalton, R. H. See also Glockler, G.
- Damard Lacquer Co., Ltd. See Potter, H. V.
- D'Ambrosio, A., waxes of perfumed flowers. I. Wax of *Rosa Drusky*, A., 176.
- Damiens, A. See Lebeau, P.
- Damour, E., and Thuret, A., determination of the temperatures of the commencement of fusion and of tempering of industrial glass, B., 937.
- Dampfkessel & Gasometerfabrik A.-G. vorm. A. Wilke & Co., distillation columns, (P.), B., 464.
- Dana, L. I., thermal properties of butane, isobutane, propane, and ethane, A., 1131.
- Dana, L. I., and Onnes, H. K., determination of the latent heat of vaporisation of liquid helium, A., 101.
determination of the specific heat of liquid helium, A., 101.
- Dănișila, N., and Stoeneșcu, V., volumetric determination of aromatic hexahydrohydrocarbons in petroleum and tar distillates, B., 98.
- Dankworth, P. W., and Pfau, E., apparatus for extraction by dialysis, A., 438.
detection of chlorophyll by means of the analytical quartz lamp, A., 1101.
- Dankworth, P. W., and Ude, W., toxicology of lead and its compounds, A., 277.
- D'Ancona, U., influence of concentration on the loss in weight of young fasting eels in sodium chloride solution, A., 899.
- Danforth, G. L., jun., and Open Hearth Combustion Co., open-hearth furnace, (P.), B., 913*.
- Dango, B. See Clans, W.
- Daniel, C. F. See Lewis, W. K.
- Daniels, F. See Bennett, W. H., and Busse, W. F.
- Daniels, J., ovens for distilling coal, (P.), B., 133, 468.
apparatus for the distillation of solid bituminous materials, (P.), B., 770.
- Daniels, S., sand-cast aluminium-magnesium silicide alloys, B., 78.
- Daniels, S., and Zimmerman, A. C., process for coating metals, (P.), B., 169.
- Danielson, R. R., composition for coating metal surfaces, (P.), B., 630.
- Danielson, W. A. See Tyler, R. G.
- Danier, C., preparation of camphor from oil of turpentine, (P.), B., 428.
regeneration of rubber and particularly that contained in the skeletons of disused tyres, (P.), B., 635.
- Daniewski, W., theory of perfect solutions, A., 204.
- Danilov, K. B. See Newton, G. A.
- Danilov, S., dehydration of cyclohexylhydrobenzoin and the isomerisation of aldehydes to ketones, A., 154.
 α -phenyl $\beta\beta$ -di-*p*-tolylethylene glycol and di-*p*-tolylacetophenone, A., 154.
- Danilov, S., and Venus-Danilova, (Mme.) E., isomerisation of diphenylacetaldehyde into deoxybenzoin, A., 460*.
relationship between α -phenylmethyl ethylene glycol and the corresponding anhydro-forms, A., 661, 763*.
- Danilov, V. A. See Smorodincev, J. A.
- Danin, L., X-ray photographs and means for obtaining them, (P.), B., 509.
- Danischewski, I., manufacture of pine extract for medical use, (P.), B., 574.
- Danischewski, S. See Simonis, H.
- Dann, C. B., and Conduit, G. W., furnace, (P.), B., 175.
- Danneel, H., laboratory preparation of sulphuryl chloride, A., 122.
- Danneel, H., and Fröhlich, K. W., reaction of sulphur with aluminium and magnesium, A., 843.
- Dannenberg, H., microscopic investigation of rubber, B., 119.
ultramicroscopical studies on the theory of vulcanisation, B., 564.
- D'Ans, J., Merzbacher, S., and Weise, K., technical varnish film investigation, B., 947.
- Danziger, W. See Dischendorfer, O.
- Darapsky, A. [with Beck, J. van der, and Philipp, E.], 1-amino-5-phenyl-2-pyrrolidone and 1-amino-2-pyrrolidone-5-carboxylic acid, A., 672.
- Darco Sales Corporation, and Mahler, P., treatment of dye effluents, (P.), B., 510.
- Darco Sales Corporation. See also Allien, V. S.
- Dargan, W. See Cornog, J.
- Darimont, L., double-fluid cell, (P.), B., 607, 660.
- Darius, G. See Akt.-Ges. für Bergbau, Blei- & Zinkfabrikation zu Stolberg & in Westfalen.
- Darker, A. H. See Stone, J., & Co., Ltd.
- Darlington, H. T., Steffen, R. M., and Schuster, M. B., process of cracking or treating oils and other similar hydrocarbons, (P.), B., 274.
- Darmois, E., properties of molybdomalic complexes. II. Action of bases, A., 41.
compounds of the tartar emetic type; classification, A., 448.
rotatory power of the tartrate ion, A., 610.
rotatory power of tartaric acid in solutions of calcium chloride, A., 723.
- Darmois, E., and Descamps, R., natural rotatory dispersion of molybdomalic complexes, A., 1126.
- Darrasse, E. See Darrasse, L.
- Darrasse, L., Darrasse, E., and Dupont, L., manufacture of synthetic camphor by means of a liquid catalyst, (P.), B., 797*.
manufacture of synthetic camphor, (P.), B., 828.
- Darwin, C. G., Zeeman effect and spherical harmonics, A., 707.
electron as a vector wave, A., 916.
- Darzens, G., preparation of α -substituted valerolactones, A., 40.
- Darzens, G., and Heinz, A., *p*-methylbenzylallylacetic acid and its cyclisation to tetrahydronaphthalene derivatives; a new dimethylnaphthalene, A., 242.
- Da Silva, M. A., determination of the half-value period of polonium, A., 182.
deformation of the ionisation curve of pure argon by the addition of oxygen, A., 809.
- Da Silva, R. A. D., sapucainha, A., 995.
capybara oil, B., 946.
- Dassdorf, R. See Loos, K.
- Daubenspeck, G. W. See Anderegg, F. O.
- Daubney, C. G., and Maclean, I. S., unsaponifiable matter of yeast-fat, A., 903.
- Daudt, W. See Skaupy, F.
- Daure, P. See Cabannes, J.
- Dauvillier, A., electrical discharge and the radiations emitted by gases and solids bombarded by slow electrons, A., 181.
spectrography of X-rays of long wave-length, N- and O-series, and the junction with the extreme ultra-violet, A., 286.
- Davenport, E. S., sub-grain boundaries in nickel, A., 1017.
- Davenport, H. A., hepatic amylase and its probable rôle in the regulation of blood-sugar, A., 68.
- Davenport, H. A., and Cotonio, M., lactic acid formation in muscle extract, A., 790.
condenser unit for use in determination of lactic acid, A., 800.
- Davenport, R. W., refrigerating processes, (P.), B., 95.
method of transforming heat applicable to refrigeration, (P.), B., 688.
- Davenport, R. W. See also Chicago Pneumatic Tool Co.
- Davey, N., consistence of cement pastes, mortars, and concrete, B., 13.
- Davey, W. P., absolute measurement of the average size of droplets of the disperse phase of an emulsion, A., 108.
making and breaking of emulsions, A., 622.
crystal structure of zirconium oxide, A., 1013.
- Davey, W. P., and Wilson, T. A., lattice parameters and densities of copper, silver, and tungsten, A., 1128.
- Davey, W. P. See also British Thomson-Houston Co., Ltd.
- David, E. See Fränkel, S.
- David, L., examination of cantharides and its preparations; new cantharides reaction, B., 124.
simple method for the detection of adulteration of essential oils with alcohol, B., 124.
- David, W. T., dissociation of carbon dioxide at high temperatures, A., 827.
- Davidsohn, J., determination of free alkali in soap, B., 18, 883.
detection of whale oil, B., 303.

- Davidsohn, J., complete saponification of fats in the manufacture of soap base, B., 707.
detection of blubber, B., 882.
- Davidson, A. See British Dyestuffs Corporation, Ltd.
- Davidson, C. R., and Stratton, F. J. M., multiplets of the nickel and cobalt arc spectra in the chromospheric spectrum, A., 1118.
- Davidson, D. See Baudisch, O.
- Davidson, G., Rippey, H. F., Cone, C. N., Laucks, I. F., Banks, H. P., and Laucks, I. F., Inc., manufacture of a cellulose-fibre product treated with a size embodying soya-bean flour, (P.), B., 438.
- Davidson, G. A. See Halloran, R. A.
- Davidson, G. F., specific volume of cotton cellulose, A., 615.
- Davidson, J., effect of hydrogen-ion concentration on absorption of phosphorus and potassium by wheat seedlings, B., 950.
- Davidson, J., and Schollenberger, J. H., effect of sodium nitrate applied at different stages of growth of wheat on the baking quality of the flour, B., 202.
- Davidson, J. G., and Carbide & Carbon Chemicals Corporation, cellulose ester composition, (P.), B., 214.
making ethylene glycol monoalkyl ethers, (P.), B., 237.
solutions of cellulose esters [for use as lacquers], (P.), B., 852*.
manufacture of a polyolefins glycol ether, (P.), B., 859.
- Davidson, J. G., and Reid, E. W., dilution ratios of nitrocellulose solvents, B., 822.
- Davidson, J. G. See also Carbide & Carbon Chemicals Corporation.
- Davidson, J. M. See Adams, R.
- Davidson, R. L. See Clark, G. L.
- Davidson, T. M., separation of minerals and other substances, (P.), B., 432.
distillation of solid carbonaceous substances, (P.), B., 644.
- Davidson, T. M., and Patent Retorts, Ltd., distillation of carbonaceous substances, (P.), B., 356.
gas producers, (P.), B., 385.
- Davidson, T. M. See also Patent Retorts, Ltd.
- Davidson, W. B., Michie, A. C., and Muddiman, E. W., distillation of tar, etc., (P.), B., 404*.
- Davies, A., apparatus for the electromagnetic separation of ores, (P.), B., 849.
- Davies, (Miss) A. C., and Horton, F., critical potentials and X-ray term values, A., 84.
- Davies, C., means for calculating or determining the required temperature of a liquid or semi-liquid [used in dough-making], (P.), B., 570.
- Davies, (Miss) Christina, and Munro, A. D., solubility of cupric sulphide in alkali sulphides in presence of sulpharsenates, A., 1020.
- Davies, C. W., calculation of activity coefficients from conductivity measurements, A., 936.
- Davies, E. C. H., and Sivertz, V., rhythmic, diurnal bands of gold and platinum in silicic acid gel, A., 18.
- Davies, G. P. See McBain, J. W.
- Davies, H., and Hartley, H., products of combustion from coal gas flames, B., 642.
- Davies, J., burner for use with liquid fuel, gas, etc., (P.), B., 549.
- Davies, J. B. See Baly, E. C. C.
- Davies, J. G. See Springer, H. B.
- Davies, R. M., temperature variation of the elasticity of sodium potassium tartrate, A., 925.
- Davies, R. O., and Provan, A. L., relationship between various factors and the ash constituents of milk, B., 889.
- Davies, T. F. See Thomas, R., & Co., Ltd.
- Davies, W., and Leeper, G. W., 1 : 8-naphthalyl chloride, A., 665.
- Davies, W., and Poole, H. G., disulphonation of *m*-dichlorobenzene and *s*-trichlorobenzene, A., 654.
- Davies, W. E., path of travel of the gases in the coke oven. I., II., and III., B., 4, 401.
conditions for success of low-temperature carbonisation, B., 769.
- Davies, W. L., titration of protein hydrolysates, A., 984.
proteins of green forage plants. III. Proteins of cruciferous forage plants (genus *Brassica*); comparison with crucifalins, a globulin from rape-seed, B., 232.
proteins of green forage plants. IV. Proteins of some plants of the natural order *Umbelliferae*, B., 232.
quality of the protein of whale meat products, B., 376.
- Davies, W. L., and Sullivan, R. S., nutritive value of dried spent hops, B., 712.
- Davignon, V. D. See General Plate Co.
- Davis, A. B. See Pennington, M. E.
- Davis, B., and Purks, H., measurement of the MoK doublet distances by means of the double X-ray spectrometer, A., 804.
- Davis, C. B., absorbent decolorising medium, (P.), B., 312.
purifying carbohydrate solutions, etc., (P.), B., 312.
- Davis, C. H., and American Brass Co., granular brazing solder, (P.), B., 223.
- Davis, C. W., glow test for metals of the platinum group, A., 641.
- Davis, D. J. L., Wallace, G. W., and S.E. Co., process and apparatus for distilling oil shale, (P.), B., 162.
- Davis, D. S., effect of temperature upon the freeness of sulphite pulp, B., 247.
freeness of groundwood pulp, B., 247.
- Davis, F., dyeing machine, (P.), B., 651.
- Davis, F. W., [combined machine for] drying and grinding wet materials, (P.), B., 240.
- Davis, F. W., and Allen, S. G., blast-furnace method, (P.), B., 783.
- Davis, G. E., and Sheard, C., spectrophotometric determination of haemoglobin, A., 984.
- Davis, H. C. See Molassine Co.
- Davis, H. L. See Raiford, L. C.
- Davis, H. N. See Dodge, B. F.
- Davis, H. S. See Petroleum Chemical Corporation.
- Davis, J. D., and Reynolds, D. A., oxidation of the constituents of a resinous Utah coal, B., 130.
- Davis, J. G., and Slater, W. K., aerobic and anaerobic metabolism of the common cockroach (*Periplaneta orientalis*). I., A., 66.
- Davis, J. G., Slater, W. K., and Smith, V., possible source of energy in anaerobic metabolism with notes on the properties of sorbitol, A., 71.
- Davis, N. R., and Metropolitan-Vickers Electrical Co., Ltd., sintering refractory materials [e.g., zirconium], (P.), B., 753.
- Davis, P. W., refining lead, (P.), B., 784.
- Davis, R. E., nitrogenous constituents of hen urine, A., 1105.
- Davis, R. F. See Chappell, M. L.
- Davis, R. O. E., and Olmstead, L. B., recovering ammonia from gases, (P.), B., 548.
- Davis, T. L., explosive, (P.), B., 204.
- Davis, T. L., and Abrams, A. J. J., carbamido series; transformations of nitroguanidine, A., 863.
- Davis, T. L., and Luce, S. B., nitroalkylguanidines, A., 1059.
- Davis, W. N. See Halloran, R. A.
- Davison, C., and Germer, L. H., scattering of electrons by a single crystal of nickel, A., 492.
- Davy, E. D., and Chu, H. P., glucosides of *Caulophyllum thalictrifolium*, A., 799.
- Dawson, E. R., influence of amino-acids on hydrolysis by pancreatic lipase, A., 483.
- Dawson, E. S. See British Thomson-Houston Co., Ltd.
- Dawson, H. M., acid and salt effects in catalysed reactions. IV. Derivation of a general equation for the catalytic activity of acids; general catalytic catenary, A., 214.
acid and salt effects in catalysed reactions. VI. The early stages of an auto-catalysed reaction; general form of the simple auto-catalytic catenary, A., 320.
acid and salt effects in catalysed reactions. VII. Tridimensional co-ordination of catalytic variables; relations between the data for pure acids and the corresponding minimum-velocity mixtures, A., 527.
acid and salt effects in catalysed reactions. VIII. Determination of hydrolytic velocity coefficients from isocatalytic data; reaction velocities in buffer solutions and compound catalytic catenaries, A., 632.
acid and salt effects in catalysed reactions. IX. General kinetic method for the determination of the degree of dissociation of water, A., 737.
significance of iso-catalytic data and the so-called proton theory of chemical reactivity, A., 1038.
- Dawson, H. M., and Dean, N. C., acid and salt effects in catalysed reactions. II. Minimum reaction velocities for acid-salt mixtures, A., 27.
- Dawson, H. M., and Hoskins, C. R., acid and salt effects in catalysed reactions. III. Dependence of the characteristics of the minimum-velocity mixture on the concentration of the acid and the application of minimum velocity to the determination of catalytic and ionisation constants, A., 117.
[acid and salt effects in catalysed reactions. V.] Isohydric solutions and the velocity of chemical change, A., 117.

- Dawson, *H. M.*, and Lowson, *W.*, acid and salt effects in catalysed reactions. X. Hydrolysis of ethyl acetate with acetic acid as catalyst, A., 1038.
acid and salt effects in catalysed reactions. XI. Hydrolysis of ethyl acetate and the catalytic catenary, A., 1150.
- Dawson, *H. M.* See also Angus, *L. H.*, and Wadsworth, *A. E.*
- Dawson, *P. R.* See Schreiner, *O.*
- Dawson, *T. R.*, and Hartshorne, *N. H.*, barytes and its employment in the rubber industry, B., 533.
- Dawson, *T. R.*, and Porritt, *B. D.*, volatile oxidation product of balata, B., 341.
- Dawson, *T. R.* See also Porritt, *B. D.*
- Dawson, *W. E.* See Brentano, *J.*
- Dawson, *W. H.* See British Alizarine Co., Ltd.
- De, *P.* See Dixon, *W. E.*
- De, *P. K.* See Sircar, *A. C.*
- De, *R.*, valency and structure of hydrogen and helium, A., 500.
structure and kinetic phenomena of hydrogen, A., 500.
ionisation potentials of hydrogen, A., 500.
- De, *S. C.*, pyrylium salts and *spirodipyran*s. I. Condensation products from *o*-hydroxyaldehydes and α -alkylated β -ketonic esters, A., 773.
thiazole series. I. Action of hydrochloric acid on allylthio-semicarbazide, A., 784.
pyrylium salts and *spirodipyran*s. II. Condensation products from methyl ethyl ketone and *o*-hydroxyaldehydes, A., 974.
action of hydrazides. I. Synthesis of triazines from amino-guanidine and diketones, A., 979.
- De Aberle, *S. B.*, Hoskins, *W. M.*, and Bodansky, *M.*, cholesterol, lecithin, and fatty acids in blood of new-born mice with inherited anaemia, A., 586.
- Deacon, *G. E. R.*, systems sodium chloride-lead chloride-water and lithium chloride-lead chloride-water, A., 1030.
- Dean, *G. E.* See Seigle, *P. G.*
- Dean, *N. C.* See Dawson, *H. M.*
- Dearborn, *R. J.*, and Texas Co., manufacture of aluminium chloride, (P.), B., 140.
- De Balsac, *A. H.*, and Deforge, *A.*, mangroves in Indo-China, B., 231.
- De Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
- De Bats, *J. H. L.*, and De Bats Metals Co., method of making [nickel-chromium] alloys, (P.), B., 784.
- De Bats Metals Co. See De Bats, *J. H. L.*
- Debauche, *H.*, apparatus for drying and distilling lignite, peat, non-coking coals, and other similar carbonaceous matter, (P.), B., 647.
transforming lignite and similar carbonaceous matter into fuel of high calorific value for industrial and domestic purposes, (P.), B., 548.
- De Belsunce, *G.*, shea butter, B., 495.
- De Bielize, *J. E. D. de G.* See Bia, *G.*
- De Blicquy, *J.* See Callebaut, *C.*
- De Block, *F.*, surface energy of the alkali halides and their solutions, A., 723.
- De Block, *F.* See also Verschaffelt, *J. E.*
- Debo, *A.* See Internationale Bergin-Comp. voor Olie- en Kolen-Chemie.
- De Boer, *F.*, exact X-ray absorption measurements, in the K region, of cobalt and its compounds, A., 286.
- De Boer, *G. M.*, X-ray evidence for the existence of different modifications of fatty acids, A., 98.
X-ray investigation of the polymorphism of fatty acids, A., 503.
- De Boer, *J. H.*, differences of stability of similarly constituted hafnium and zirconium complexes, A., 949.
separation of hafnium and zirconium by precipitation of the phosphates from sulphuric acid solutions, A., 954.
phenomena caused by the low refractive indices of the alkali fluoroborates, A., 1025.
zirconium, B., 941.
- De Boer, *J. H.*, and Arkel, *A. E. van*, model for the molecules of methane and other compounds of the type XY_4 . I. and II. A., 189.
- De Boer, *J. H.*, Clausing, *P.*, and Zecher, *G.*, preparation of small quantities of potassium, rubidium, or caesium, A., 328.
- De Boer, *J. H.*, and Koets, *P.*, separation of hafnium and zirconium by fractional decomposition of the complex phosphato-fluoro-hafnates and -zirconates, A., 954.
- De Boer, *J. H.*, and Liempt, *J. A. M. van*, thermal dissociation of alkali fluoroborates, A., 429.
- De Boer, *J. H.*, and Naaml. Vennoots. Philips' Gloeilampenfabr., converting hafnium and zirconium phosphates, (P.), B., 365*.
- De Boer, *J. H.* See also Arkel, *A. E. van*.
- De Boosere, *M.*, macroscopic constituents of Campino coals, B., 160.
- De Brey, *J. H. C.* See Bataafsche Petroleum Maatschappij.
- De Broglie, *L.*, wave mechanics and atomic structure of matter and of radiation, A., 807.
- De Brouckère, *M. L.*, and Belcke, *E.*, colorimetric determination of aluminium by Martin's method, A., 640.
- De Bruin, *T. L.*, regularities in the arc spectra of fluorine and chlorine, A., 82.
double normal state of the arc spectrum of fluorine, A., 82.
regularities in the spectra of fluorine and chlorine, A., 490.
spectrum of ionised neon (Ne II), A., 705.
spark spectrum of neon, Ne II. I., A., 910.
- De Bruyne, *N. A.*, and Sanderson, *R. W.*, electrostatic capacity of aluminium and tantalum anode films, A., 210.
- Debueh, *C. P.*, rotary kilns for pyrites burning, B., 628.
- Debye, *P.*, conductivity of strong electrolytes in dilute solutions, A., 1031.
salting out, and the ionic electric field, A., 1141.
- De Carli, *F.*, additive products of sulphur dioxide and aromatic hydrocarbons. I. and II., A., 234.
anhydrous borates of silver, barium, and zinc, A., 325.
reactivity of manganese dioxide in the solid state, A., 327.
solvent properties of liquid sulphur dioxide and liquid ammonia towards certain organic substances, A., 720.
- De Cew, *J. A.*, and Process Engineers, Inc., paper sizing, (P.), B., 296.
- Déchène, *G.* See Reboul, *G.*
- Dechesne, *J.*, cupola furnace, (P.), B., 302.
- De Costa, *M. S.* See Maximoff, *J.*
- Dede, *L.*, and Faber, *W.*, oxalochlorides of cerium, A., 855.
- Dede, *L.*, and Walther, *T.*, solubility of silver halides in concentrated halide solutions, A., 830.
- Dědek, *J.*, formation and nature of molasses, B., 423, 664.
- Dědek, *J.*, and Káel, *K. L.*, adsorption [from sugar juice] in a layer of active carbon, B., 920.
- Dědek, *J.*, and Novaček, *J.*, crystallisation of sugar solutions, B., 567.
- De Diesbach, *H.*, and Guhl, *M.*, derivatives of cumidic and pyromellitic acids, A., 767.
- De Dios Fernandez, *J.* See Fühner, *H.*
- De Donder, *T.*, electrons [as a] gas, A., 603.
fundamental equation of quantum chemistry, A., 1121.
- Dee, *P. I.*, mobility of the actinium-A recoil atom measured by the cloud method, A., 1120.
- Deel, *H.*, and Deel, (*Mme.*) *H.*, influence of reaction of soil on formation and composition of marjoram, B., 710.
- Deel, (*Mme.*) *H.* See Deel, *H.*
- Deering, *E. C.* See Powell, *A. R.*, and Schoeller, *W. R.*
- De Fazi, *R.*, alcoholic fermentation of dextrose solutions exposed to the action of ultra-violet rays, A., 592.
indones. VIII., A., 1077.
indones. IX. Truxones, A., 1077.
alcoholic fermentation of solutions of dextrose in water exposed to the radiation of a quartz mercury vapour lamp, A., 1113.
- De Fleury. See Guillet, *L.*
- De Fleury, *R.*, magnesium: melting, alloying, and casting, B., 15*.
- De Foe, *O. K.*, and Jauncey, *G. E. M.*, separation of the modified and unmodified scattering coefficients of X-rays, A., 1118.
- De Forerand, *R.*, thallous carbonates, A., 530.
- Deforge, *A.* See De Balsac, *A. H.*
- Defries, *R. D.*, and McKinnon, *N. E.*, effect of various hydrogen-ion concentrations on the longevity of vaccino virus, A., 485.
- Degkwitz, *R.*, and Greutert, *E.*, & Cie., process of preparing a measles vaccine and a serum obtained therefrom, (P.), B., 173*.
- De Graaf, *W. C.*, mixed acid fermentation; fermentative sugar dissimilation by micro-organisms of the coli group, A., 379.
- De Groot, *G. P.* See Nieuwenburg, *C. J. van*.
- De Groote, *M.*, Adams, *W. C.*, and Barnickel & Co., *W. S.*, breaking of petroleum emulsions, (P.), B., 901.
- De Groote, *M.*, and Barnickel & Co., *W. S.*, treating water-in-oil emulsions; breaking petroleum emulsions, (P.), B., 67.
breaking petroleum emulsions, (P.), B., 163.
- Deguide, *C.*, production of refractory material, (P.), B., 411.

- De Guillebon, G., and Normand, E., G. & M., apparatus for pulverising chalk and similar substances [for fertiliser], (P.), B., 199*.
- Déguisne, H. See Hahn, F. L.
- De Haan, K. See Grijs, G.
- De Haas, W. J., and Sizoo, G. J., magnetic disturbance of the superconductivity with tin and mercury, A., 11.
- De Haas, W. J. See also Sizoo, G. J.
- De Haën, W., manufacturing colloidal phosphate fertilisers, (P.), B., 88.
- De Haen Chem. Fabr. "List" G.m.b.H., E., production of normal and other standard solutions, (P.), B., 907.
- De Hemptinne, M., latent heats of vaporisation, A., 193.
- thermal expansion of metallic compounds, A., 614.
- Dehlinger, U., and Glocker, R., atomic structure of the anti-mony oxides, A., 924.
- Dehn, W. M. See Loh, R. T. C.
- Dehnicke, J., influence of water containing sulphuric acid on the germinating power of steeped grain, B., 56.
- Dehnicke, J., and Kilp, W., influence of the aldehyde content of industrial alcohol on its use for lighting purposes, B., 34.
- influence of the hydrogen-ion concentration on the velocity of the fermentation and yield of alcohol, B., 312.
- nitrogenous nutrients of yeast in the fermentation of maize and potato mash, B., 666.
- Deibel, C. P. See Twin Dry Cell Battery Co.
- Deiches, S., bearing metal, (P.), B., 913.
- Deister, E., apparatus for concentrating materials such as coal, (P.), B., 930.
- De Jahn, F. W., and Atmospheric Nitrogen Corporation, production of nitrogen-hydrogen mixture for the synthetic production of ammonia, (P.), B., 108*.
- Déjardin, G., spark spectra of mercury in the ultra-violet region, A., 83.
- De Jarny, E. J. P. C., manufacture of condensation products from phenols and formaldehyde, (P.), B., 259, 852*.
- Dejean, P., influence of compression on the fragility of steel; existence of a limit of fragility, B., 222.
- Dejmek, J., general property-function of mixtures [of metals] free from mixed crystals, A., 719.
- De Jong, M., improving detections, A., 124.
- De Jong, W. F., mineral component of bones, A., 10*.
- De Jong, W. F., and Hoog, A., compound RuS_2 and its structure, A., 533.
- De Jong, W. F., and Willems, H. W. V., existence and structure of the disulphides NiS_2 and CoS_2 , A., 328.
- compounds Fe_3S_4 , Co_3S_4 , and Ni_3S_4 , and their structure, A., 502.
- compounds of the lattice type of pyrrhotine (FeS), A., 815.
- De Kadt, P. J., production of benzine, kerosene, and higher hydrocarbons from crude petroleum oil emulsions of the water-in-oil type, (P.), B., 770.
- Dekker, J. W., thermodynamic theory of capillarity, A., 733.
- Dekker, K. D. See Cohen, E.
- Dekker, M. See Hissink, D. J.
- De Kolosovski, N., molecular diameter of unassociated liquids at their b. p., A., 189.
- specific heats of a highly-cooled non-condensed phase, A., 301.
- expansion of liquids and heat of vaporisation, A., 302.
- heat of evaporation and [degree of] association of hydrogen fluoride, A., 506.
- chemical constant of benzene, A., 718.
- experimental basis of the third law of thermodynamics, A., 732, 1142.
- thermodynamic necessity of gas degeneration, A., 936.
- De Kromme, L. See Waterman, N.
- Delaby, R., isomerisation of alkylvinylcarbinols to β -alkylallyl alcohols, A., 131*.
- derivatives of thymol, A., 145.
- Delaby, R., and Dumoulin, J. M., isomerisation of alkylvinylcarbinols to ethyl alkyl ketones, A., 130.
- Delaby, R., and Janot, M., cyclohexylglycerol, A., 131*.
- Delachaux, L., formation of phosphorus sulphides from phosphine, A., 326.
- Delahaye, Rachet, & Cie., treatment of skins, e.g., hare skins, (P.), B., 791.
- De Lambert, L., and Zucco, P., production of a hydraulic aluminium binding material and an iron alloy, (P.), B., 524.
- De Lange, S., preparation of a metallic coating for walls, ceilings, etc., (P.), B., 939.
- De Lange, W. See Aten, A. H. W.
- Delaplace, R., and Marinesco, N., physico-chemical properties of cesium eosinate, A., 92.
- De Lapparent, J., hydrated alumina of the bauxites [boehmite], A., 748.
- De La Riboisière, J. F. P., [liquid] fuels, (P.), B., 358*.
- motor fuel, (P.), B., 627*.
- cracking of mineral oil and other hydrocarbon material, (P.), B., 868.
- De Laszlo, H., ultra-violet absorption spectra of cyclohexene, ethyl ether, methyl *n*-amyl ether, and ethylene chlorohydrin, A., 918.
- absorption of ultra-violet rays by the ten isomerides of dichloronaphthalene, A., 1007.
- De Lattre, G., density and refractive index of solutions, A., 616.
- Delanuey, E., atomic character of some properties of \bar{X} -rays, A., 803.
- quantitative analysis of a mixture of rare earths, A., 847.
- Delanuey, P., biochemical synthesis of β -5-chlorosalicylglucoside, A., 174.
- De Laval Separator Co. See Forsberg, E. A., and Hall, S. H.
- De Lavand, S. See Guillet, L.
- Delaville, M., comparative migratory tendencies of phenyl and diphenyl radicals, A., 461.
- Delaville, M., and Belin, J., nephelometric determination of small quantities of arsenic, A., 376.
- Delaville, M., and Brown, D., determination of chlorine in organs and in blood, A., 787.
- Delaville, M. See also Mestrezat, W.
- Delaware Chemical Engineering Co. See Du Pont, F. I.
- Del Campo, A., Manzano, F., and Mallo, A., complex chromium salts, A., 951.
- Delcuvellerie, E., [discharging device for] washing and separating apparatus for coal and other minerals, (P.), B., 358.
- Delépine, M., oxidation of pyridine and the pyridine nucleus with permanganate, A., 254, 466*.
- chlorides and chloro-salts of rhodium, A., 433.
- Delépine, M., and Cachat, C., liquid hydrochlorides of pinene, A., 156.
- De Lestrang-Trevis, (Mme.). See Fourneau, E.
- Del Fresno, C., changes in volume in the formation of halides, oxides, and sulphides, A., 294.
- Del Fresno, C., and Vázquez, J., potentiometrical study of the reaction between calcium ferrocyanide and solutions containing rubidium and caesium, A., 430.
- Delfs, D. See Feist, F.
- Deljannis, A. See Bennewitz, K.
- Delis, D. See Bergmann, M.
- Della Porta, A. See Roche, C.
- Dello Joio, G. See Mazza, F. P.
- Delmas, L. See Audibert, E.
- Del Mundo, S., analysis of phenol (carbolic acid), B., 901.
- De Long, W. A., effect of potassium iodide in the Shaffer-Hartmann micro sugar reagent, A., 600.
- Delpech, J., manufacture of fine organzines and crêpe fabrics in artificial [nitrocellulose] silk, (P.), B., 184.
- [manufacture of] artificial silk from nitrocellulose, (P.), B., 362.
- Delph, A. E. See Courtaulds, Ltd.
- Del Regno, W., nickel electrical resistance thermometers, A., 1163.
- Deluchat, See Lespiau, R.
- De Luisi, E., determination of manganese in rich alloys, B., 191.
- Demag A.-G., cooling granular combustible material such as coke, semi-coke, etc., (P.), B., 866.
- De Malleman, R., molecular theory of rotatory power and the calculation of Verdet's constant, A., 8.
- calculation of the rotatory power of a system of anisotropic atoms or molecules, A., 610.
- general theory of molecular rotation, A., 610.
- electrical birefringence of benzil, A., 1130.
- De Malleman, R., and Gabiano, P., circular dichroism of the alkali cuprotartrates, A., 812.
- Demann, W., purification of waste acid from crude oil refining, (P.), B., 436.
- Demant, J., purification of hydrocarbons, (P.), B., 245.
- Demaret, O., treatment of glass plates and the like to prevent moisture affecting their transparency, (P.), B., 365.
- Demassieux, (Mme.) N., action of oxalic acid on some soluble lead salts, A., 959.
- De Mieres, C., galvanic battery, (P.), B., 416.
- De Milt, C. M. See Nieolet, B. H.

- Demjanov, N. J., and Nilov, V. I., composition of the essential oil of *Pistacia mutica*, Fisch. et Mey, B., 956.
- Demjanov, N. J., and Prianschnikov, D. N., action of the silent discharge in olefines, A., 336.
- Demjanov, N. J., and Williams, V. V., composition of the essential oil of *Siler trilobum*, Scop., B., 956.
- Demmerle, W. F. See Wickenden, L.
- Demmler, G. See Lecher, H.
- Demolon, A., determination of ammonia in fertilisers and soils by a cold method, B., 792.
- Demolon, A., and Barbier, G., viscosimetry in the study of colloidal clay, A., 934.
- selective absorption of ions by colloidal clay, B., 654.
- Demolon, A., and Natier, E., action of potassium chloride on soils free from calcium, B., 56.
- De Moncezt, A. G., chemical actions of radiations, A., 218.
- De Montmollin, G., Bonhôte, G., and Society of Chemical Industry in Basle, manufacture of stable diazo-compounds, (P.), B., 470*.
- De Montmollin, G., Straub, F., Spieler, J., and Society of Chemical Industry in Basle, process for making azo-dyestuff from barbituric acid, (P.), B., 69*.
- Demontvignier, M., vacuum distillation technique, A., 1163.
- Demontvignier, M. See also Dufraisie, C.
- Demoussy, E. See André, G.
- Dempster, A. J., passage of positively-charged particles through helium, A., 182.
- Dempster, R., & Sons, Ltd., and Toogood, H. J., [valve for] gas-retort plant, (P.), B., 596.
- Dempster, R., & Sons, Ltd. See also Carr, W. M., and Toogood, H. J.
- Demuth, W. See Auwers, K. von.
- Denes-Goetz, J. See Nitescu, I. I.
- Denham, H. J., and Blair, G. W. S., rapid electrometric method for the measurement of hydrogen-ion concentration of flour-water suspensions, B., 202.
- determination of amino-acids and proteolytic activity in wheat and flour, B., 397.
- Denham, H. J., Blair, G. W. S., and Watts, G., use of Ostwald viscosimeters for flour suspensions, B., 638.
- Denham, H. J., and Simon, Ltd., H., grinding or disintegrating machines, (P.), B., 689.
- Denham, H. J. See also Blair, G. W. S.
- Denham, W. S., and Brash, W., isoelectric point of silk-fibroin, B., 933.
- Denigès, G., preparation and composition of the crystalline phospho- and arseno-conjugated ceruleo-molybdates, A., 433.
- nephelometric determination of arsenic, A., 600.
- stable and unstable molybdenum blues; analytical applications to the determination of phosphoric and arsenic ions, A., 1156.
- Denina, E., contact *E.M.F.* between any two solutions. I. Simpler derivation of Planck's and Johnson's formulæ for solutions with equivalent cations and anions; some considerations and formulæ for more complex cases, A., 114.
- applications of thermodynamics, A., 314.
- general relation between *E.M.F.* and temperature, A., 316.
- second law of thermodynamics, A., 827.
- anodic formation of powdered copper and passivity of the anodes, B., 656.
- Denis, L., formation of chloranil from aromatic compounds, A., 154.
- Denis, W., and Reed, L., determination of non-protein sulphur compounds of blood; determination of sulphur compounds in urine, A., 167.
- action of blood on sulphides, A., 476.
- influence of renal function on concentration of sulphur compounds in blood; effect of administration of sulphur on concentration of sulphur compounds in blood and urine, A., 695.
- Denis, W. See also Reed, L.
- Dennett, J. H., Nipah palm; further investigations on tapping and preservation of juice, B., 263.
- Dennis, L. M., glass containing germanium, (P.), B., 109.
- Dennis, L. M., and Laubengayer, A. W., germanium. XVII. Fused germanium dioxide and some germanium glasses, B., 42.
- Dennis, L. M. See also Brewer, F. M., Orndorff, W. R., Tressler, (Miss) K. M., and Wyckoff, R. W. G.
- Dennis, W. See Schlitt, J. L.
- Dennison, D. M., wave mechanics and the rotation of homopolar molecules, A., 291.
- Dennison, D. M., specific heat of the hydrogen molecule, A., 817.
- Dennler, W. S. See McKenzie, A.
- Dennstedt, I. See Wieland, H.
- Denny, F. E., effect of small amounts of chemicals in increasing the life activities of plants [and ripening of fruit], B., 762.
- Denny, F. E., and Boyce Thompson Institute for Plant Research, Inc., process of sprouting buds and plants, (P.), B., 499.
- Densch, and Pfaff, the Mitscherlich method [for determining the fertiliser requirement of soils], B., 855.
- Dent, (Miss) B. M. See Lennard-Jones, J. E.
- Dent, F. J., and Cobb, J. W., influence of the ash constituents in the carbonisation and gasification of coal; Gas Fellowship 1927 Rept., B., 833.
- Denver, N. See Burgess, Ledward & Co., Ltd.
- Deodhar, E., electric accumulator, (P.), B., 493.
- Deodhar, D. B., wave-lengths of new lines in secondary spectrum of hydrogen, A., 1.
- Deodhar, G. B., electricity in dust clouds. I, A., 621.
- De Paniagua, M. L. Y., wood charcoal briquettes, (P.), B., 769.
- De Paniagua, Y. See Neveu, H.
- De Paolini, I., dioximes. XL. [Action of bromine on hydroxamic acids], A., 135.
- dioximes. XLV, A., 1207.
- De Paolini, I. See also Ponzio, G.
- Deperrois, E. D., direct production of acetic acid from crude pyroigneous acid, (P.), B., 701.
- Deppe, W. P. See Parsons, C. E.
- De Remer, J. G., mercury compressor [for gases] evolved from Archimedes' screw pump, A., 537.
- Derleth, C. P., and Celite Co., disposal of sewage, (P.), B., 350.
- Dern, G. See Rothert, C.
- De Ros, D., and Barton, F., colouring cements, plasters, plastics, etc., (P.), B., 484.
- Derrégibus, E., manufacture of vermin killer, (P.), B., 622.
- Derry, G. C. See Sturtevant Co., B. P.
- Dervies, G. W. See Rasenkow, I. D.
- Descamps, R., anomalous rotatory dispersion, in the ultra-violet, of aqueous solutions of tartaric acid containing boric acid, A., 307, 409.
- rotatory dispersion, in the ultra-violet region, of aqueous solutions of tartaric acid, A., 723.
- natural rotatory dispersion in the ultra-violet of aqueous solutions of the neutral tartrates of sodium, potassium, and ammonium, A., 823.
- Descamps, R. See also Darmon, E., and Liquier, (Mlle.) J.
- Desch, C. H., crystallisation of metals, A., 191.
- De Schacken, J. M. G., stabilisation of chlorinated hydrocarbons used in cleaning and scouring, (P.), B., 974.
- Desev, N. See Balarev, D.
- Desfemmes, A. See Borda, F.
- Desgrez, A., Lescœur, L., and Manjean, (Mlle.) S., influence of the reaction on the decomposition of sulphuretted waters by a current of inert gas; hydrological applications, A., 115.
- Desgrez, A., and Meunier, J., lithium and strontium in human teeth and bones, A., 894.
- Deshusses, J. See Deshusses, L. A.
- Deshusses, L. A., and Deshusses, J., determination of trivalent arsenic, A., 744.
- De Simo, M. See Goldstein, H.
- Deslandres, H., [special effects of polonium, solar radiation, and high tension on lead], A., 807.
- De Sotto, R. G. Y., manufacture of sulphuric acid, (P.), B., 298.
- De Sperati, M., and Argentographica (U.S.A.), Ltd., production of a photocollographic printing plate, (P.), B., 715.
- D'Espine, J. See Yovanovitch, D. K.
- Dessauer, F., and Metallbank & Metallurgische Ges. Akt.-Ges., apparatus for the quantitative analysis of substances with the aid of Röntgen or cathode rays, (P.), B., 735, 863, 959.
- Dessemond, A., impregnating wood, (P.), B., 678.
- Dessemonet, E., action of essential oils on the formation of methæoglobin, A., 1102.
- Desvergnes, L., nitrometric determination of tetryl, B., 93.
- De Toni, G., lithium citrate as anticoagulant in blood investigations; systematisation of blood micro-analysis, A., 371.
- De Turk, E. E. See Smith, R. S.
- Deubner, A., dielectric constant for very dilute solutions of electrolytes, A., 1126.
- Deuel, H. J., jun., respiratory metabolism following administration of various carbohydrates, A., 1217.

- Deuel, H. J., jun., Wilson, H. E. C., and Milhorat, A. T., animal calorimetry. XXXV. Mechanism of phloridzin diabetes, A., 987.
- Deulofeu, V. See Estrada, O. P.
- Deuticke, H. J. See Embden, G.
- Deutsch, D., displacement of chemical equilibrium at bounding surfaces, A., 732, 1022.
- Deutsch, D. See also Ettisch, G.
- Deutsch, H. See Consortium für Elektrochemische Industrie, G.m.b.H., and Herrmann, W. O.
- Deutsch, L., determination of silicon in ferrosilicon, B., 703.
- Deutsch, W. See Waldschmidt-Leitz, E.
- Deutschberger, O. See Fürth, O.
- Deutsch-Luxemburgische Bergwerks- & Hütten-A.-G., and Bauerfeld, F., improving the properties of hard alloys, e.g., stellite and akrite, (P.), B., 491.
- Deutsch-Renner, H., process and apparatus for testing the different steps in bread-making, (P.), B., 202.
- Deutsche Babcock & Wilcox Dampfkesselwerke Akt.-Ges., [ash-cooling screens for] furnaces, (P.), B., 545.
- Deutsche Erdöl-Akt.-Ges., [low-temperature] carbonisation by direct internal heating, (P.), B., 385.
- extraction and decomposition of bitumen, (P.), B., 517.
- conversion of heavy into lighter hydrocarbons, (P.), B., 673.
- Deutsche Erdöl-Akt.-Ges., and Bomeke, K., gas-purifying apparatus, (P.), B., 516.
- Deutsche Gasglühlicht-Auer-Gesellschaft, manufacture of a brown pigment containing titanium sludge, (P.), B., 85.
- manufacture of refractory articles of pure zirconium oxide, (P.), B., 109.
- production of pure cerium compounds, (P.), B., 188.
- production of titanate unaffected by light, (P.), B., 251.
- purification of salicylic acid, (P.), B., 459.
- indicating the exhaustion of substances used for cleaning gases, (P.), B., 690.
- indicating or controlling devices operating in the presence of impurities or other additions in gases or liquids, (P.), B., 832.
- Deutsche Gasglühlicht-Auer-Gesellschaft, and Einig, J., production of azoimide solution from its alkali salts, (P.), B., 330.
- Deutsche Gasglühlicht-Auer-Gesellschaft, and Engelhardt, H., production of fibrous material for filtering gases and mists, (P.), B., 472.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, production of 5-nitro-2-hydrazinopyridine, (P.), B., 29.
- preparation of iodinated pyridine derivatives, (P.), B., 379.
- production of concentrated solutions of alkali cyanides, (P.), B., 365*.
- preparation of organic arsenic compounds, (P.), B., 429.
- iodising pyridine derivatives, (P.), B., 507.
- production of 3-pyridylhydrazine and its derivatives, (P.), B., 572.
- production of heterocyclic arsenic compounds, (P.), B., 670.
- method of stabilising hydrocyanic acid, (P.), B., 813.
- production of sodium cyanide from calcium cyanamide, (P.), B., 937.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Andrich, K., production of concentrated solutions of alkali cyanides, (P.), B., 408.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Freudenberg, H., manufacture of alkali metal cyanides, (P.), B., 251.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, and Kerschbaum, F., stabilising hydrocyanic acid, (P.), B., 554.
- Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler. See also Beck, W., Binz, A., and Liebknecht, O.
- Deutsche Kunsthorn Gesellschaft, manufacture of horn-like materials from albuminous substances, (P.), B., 306.
- Deutsche Linoleum-Werke Hansa. See Slansky, P.
- Deutsche Luftfilter Bauges.m.b.H. See Linden, (Grafin) M. von.
- Deutsche Maschinenfabrik Akt.-Ges., asbestos filter for the dry recovery of solid constituents of blast-furnace gases and the like, (P.), B., 320.
- Deutsche Petroleum-Akt.-Ges., and Riesenfeld, E. H., motor fuels, (P.), B., 357.
- Deutsche Sprengstoff-Akt.-Ges. See Metallbank & Metallurgische Ges. Akt.-Ges.
- Deutsche Ton- & Steinzeug-Werke A.-G., and Kürten, T., production of ceramic masses, (P.), B., 842.
- Deutsche Verkohlungs- & Destillationsges. See Donnick, W. C. E.
- Deutsche Versuchsanstalt für Luftfahrt, E. V., manufacture of chemically pure aluminium, (P.), B., 847.
- Deutsche Zellstoff-Textilwerke G.m.b.H., and Leuchs, K., recovery of hemicellulose-free sodium hydroxide mercerisation liquor, (P.), B., 812.
- Deutscher, K. See Pollak, J.
- Devaucelle, L. P., white colouring matter, (P.), B., 197.
- vacuum evaporator, (P.), B., 383.
- Devaux, H., and Aubel, E., adsorption of ions by glass, A., 408.
- Deventer, C. M. van, trace of an ancient theory in a modern principle, A., 1164.
- Devers, P. K. See British Thomson-Houston Co., Ltd.
- Devers, P. K., jun., and General Electric Co., electric [arc] lamp, (P.), B., 116.
- Devienne, E., toning and fixing of photographic prints, (P.), B., 957.
- De Vilbiss Co., apparatus for cleansing air and gases, (P.), B., 671.
- Devillars, L. B., treatment of fuels, (P.), B., 866.
- De Villiers, F. J., physiological studies of the grape. I. Anatomy and distribution of primary chemical constituents. II. Enzymes. III. Respiration. IV. Transpiration. V. Factors affecting the keeping quality. VI. Bursting of berries. VII. Diurnal variations in humidity, temperature, and root pressure, A., 597.
- De Voogd, J. G., determination of the coking power of coal, B., 177.
- Devoto, G. See Bozza, G.
- De Vries, O., mould on rubber, B., 885.
- De Vries, O., and Beaumée-Nieuwland, N., coagulation phenomena in *Hevea* latex. IV. Latex in the second liquid zone, B., 372.
- preserved latex. V. and VI. Preserving latex with ammonia, B., 884.
- De Vries, O., and Spoon, W., ball rubber (rubber prepared after the Brazilian method), B., 372.
- De Vries, T., and Rodebush, W. H., thermal dissociation of iodine and bromine, A., 415.
- Dew, D. H. See Woodroffe, D.
- Dew, W. A., and Taylor, H. S., adsorption and heat of adsorption of ammonia gas on metallic catalysts, A., 305.
- De Waal, A. J. C., silica gel, B., 480.
- Dewael, A. See Bruylants, P.
- De Waele, A., manifestation of interfacial forces in dispersed systems, A., 16.
- physical concepts on problems in the paint and allied industries, B., 227.
- physical factors influencing the properties of paint pigments, B., 883.
- Dewald, M. See Rheinboldt, H.
- Dewar, W., metallurgical treatment of copper silicate ores or products, (P.), B., 114.
- Dewey, D. A. See British Thomson-Houston Co., Ltd.
- Dewey, J. M., intensities in the Stark effect of helium, A., 180.
- Dewhurst, F. See Baker Perkins, Ltd.
- De Wilde, P. R., and Société Suisse des Explosifs, explosive, (P.), B., 894.
- De Wolf, L., improving cellulosic materials, in particular vegetable textile fabrics, (P.), B., 70.
- De Wolff, C. J., sucrose formation in potatoes during drying, A., 80; B., 122.
- Dexter, S. T. See Kraemer, E. O.
- Dey, A. N., and Dhar, N. R., relation between the order of a reaction and its temperature coefficient for reactions of certain organic acids with chromic acid or potassium permanganate, A., 116.
- Dey, B. B., and Krishnamurti, P., nitration of coumarin, A., 974.
- Dey, B. B., Sarkar, I., and Seshadri, T. R., quinoline-6:5-apyrones; [ψ -1:8-isonaphthoxazones], A., 63.
- Dey, B. B., and Seshadri, T. R., 6-hydroxy-5- β -acrylic acids (*cis*- and *trans*-) and their derivatives, A., 976.
- Dey, B. B. See also Krishnamurti, P.
- Deyscher, E. F. See Holm, G. E.
- De Zubiria, J. R., electric induction furnaces, (P.), B., 226.
- Dhar, N. R., ionic volume and hydration, A., 111.
- hydration of ions and variation in equivalent conductivity of salts on dilution, A., 113.
- production of ions in chemical reactions and the mechanism of induced, photochemical, and catalytic reactions, A., 216.
- physicochemical explanation of normal bone formation, production of crystalline deposits in illness, and of influence of alkalis on assimilation, A., 645.

- Dhar, *N. R.*, relation between the metabolism of dextrose and fats in diabetes, A., 896.
adsorption of ions and of sols at interfaces and its application to certain problems of colloid chemistry, A., 1021.
- Dhar, *N. R.*, and Chakravarti, *D. N.*, ageing phenomena in viscosity and conductivity of some sols and electrolytes, A., 725.
- Dhar, *N. R.*, and Chatterji, *A. C.*, theory of periodic precipitation, A., 200.
change in electrical conductivity of electrolytes and sols with increasing age, A., 629.
- Dhar, *N. R.* See also Chakravarti, *D. N.*, Chakravarti, *M. N.*, Chatterji, *A. C.*, Dey, *A. N.*, and Ghosh, *S.*
- Dhar, *P. R.*, and Dutt, *S.*, dyes derived from itaconic acid, A., 969.
dyes derived from citraconic acid, A., 969.
- Dhéré, *C.*, electrodialysis in biochemistry. I. and II., A., 423, 600.
- Diamond, *C.* See Courtaulds, Ltd.
- Diamond, *G. le B.*, corrosion of silica retorts [in gas manufacture], B., 834.
- Diamond State Fibre Co. See McIntosh, *J.*
- Diatom Insulation Co. See Williams, *R. C.*
- Díaz Aguirreche, *F.*, viscosimetric determinations with low-grade sugar refining products, B., 760.
catalytic hydrogenations with platinum oxide. I. Salicylic acid and phthalic anhydride, A., 1188.
- Díaz de Plaza, *F. M.* See Montequi, *F.*
- Díaz de Rada, *F.*, sensitive reagent for sodium ions; possible differentiations and separations among the alkali and alkaline-earth metals, A., 36.
- Di Capua, *C.*, and Scaletti, *U.*, reciprocal pair $\text{NaCl} + \text{KClO}_3 \rightleftharpoons \text{NaClO}_3 + \text{KCl}$, A., 731.
- Dichno, *M. A.*, and Briskin, *O. M.*, evaluation of sour cream, B., 235.
- Dick, *G. F.*, and Dick, *G. H.*, methods for producing scarlet fever toxin and antitoxin, (P.), B., 237.
- Dick, *G. H.* See Dick, *G. F.*
- Dick, *J.* See Spacu, *G.*
- Dick, *W.* See Seidel, *F.*
- Dickely, *J.* See Cornec, *E.*
- Dickens, *F.*, Dodds, *E. C.*, Lawson, *W.*, and MacLagan, *N. F.*, purification and properties of insulin, A., 701.
- Dickerson, *W. H.*, recovery of solids from their solutions, (P.), B., 1.
- Dickerson, *W. H.*, and Industrial Waste Products Corporation, products obtained by desiccation, (P.) B., 159.
preparation of a product [fertiliser] from molasses, (P.), B., 611.
- Dickey, *S. J.*, and General Petroleum Corporation of California, method of treating one liquid with another, (P.), B., 433.
- Dickey, *S. J.*, Wheeler, *R. C.*, and General Petroleum Corporation of California, purification of petroleum products, (P.), B., 806.
- Dickhart, *W. H.* See Trevithick, *H. P.*
- Dickie, *H. A.*, magnetic and other changes concerned in the temper-brittleness of nickel-chromium steels, B., 968.
- Dickie, *H. A.* See also Andrew, *J. H.*
- Dickie, *W. A.* See British Celanese, Ltd.
- Dickinson, *R.*, and Heilbron, *I. M.*, styrylpyrylium salts. VIII. 2-Styryl derivatives of β -naphthapyrylium chloride, A., 251.
styrylpyrylium salts. IX. Colour phenomena associated with benzonaphtha- and dinaphtha-spiropyran, A., 884.
- Dickinson, *R.*, Heilbron, *I. M.*, and Irving, *F.*, intermolecular condensation of styryl methyl ketones. I., A., 971.
- Dickinson, *R. G.*, and Mitchell, *A. C. G.*, decomposition of ammonia by optically excited mercury atoms, A., 217.
- Dickinson, *R. G.* See also Hendricks, *S. B.*, Mitchell, *A. C. G.*, and Tolman, *R. C.*
- Dickinson, *W. J.* See British Portland Cement Manuf., Ltd.
- Didier, *L. J. B.*, three-colour photography, (P.), B., 621.
- Diedrich, *W.*, apparatus for the separation of iron and slag, (P.), B., 338.
- Diefenbach, *E.* See Emmert, *B.*
- Dieke, *G. H.*, specific heat of hydrogen, A., 1018.
- Dieke, *G. H.*, and Babcock, *H. D.*, structure of the atmospheric absorption bands of oxygen, A., 1005.
- Dieke, *G. H.*, and Hopfield, *J. J.*, absorption spectrum of hydrogen and the analysis of its ultra-violet band spectrum, A., 89, 1121.
combinations in the ultra-violet spectrum of the hydrogen molecule, A., 1005.
- Diels, *O.*, and Alder, *K.*, causes of the "azo-ester reaction," A., 159.
preparation and reactions of pyrylium perchlorates, A., 465.
- Diels, *O.*, Buddenberg, *O.*, and Wang, *S.*, new transformations of oximes and phenylhydrazones, A., 253.
- Diels, *O.*, and Gädke, *W.*, formation of chrysene by the dehydrogenation of cholesterol, A., 241.
- Diels, *O.*, and Hansen, *K.*, carbon suboxide, A., 40.
- Diels, *O.*, and Lichte, *R.*, cyanurin group, A., 162.
- Diemair, *W.* See Rüdiger, *M.*
- Diener, *H. O.* See Boas, *F.*
- Diener, *F.*, and Etrillard, *P.*, action of free chlorine on micro-organisms, A., 1114.
- Diencke, *J. W.*, constitution of thiocyananiline and some derivatives, A., 454.
- Dierichs, *A.* See Loevenich, *J.*
- Diester, *H.* See Dieterle, *H.*
- Dieterle, *H.*, Diester, *H.*, and Thimann, *T.*, oil of *Secale cornutum* and its daturic acid content, A., 799.
- Dieterle, *H.*, and Eschenbach, *W.*, new way of utilising carbon monoxide, A., 766.
- Dietrich, *H. E.* See Henderson, *W. F.*
- Dietrich, *H. G.*, and Johnston, *J.*, equilibrium between crystalline zinc hydroxide and aqueous solutions of ammonium hydroxide and of sodium hydroxide, A., 731.
- Dietrich, *M. A.* See Flowers, *A. E.*
- Dietrich, *R.*, refractometric examination of liquid fuels, B., 594.
- Dietrich, *S.*, diabetes and the action of insulin. XI. The organ secreting glycæmin. XII. Direct proof of the secretion of insulin by the pancreas, A., 1222.
- Dietrich, *S.*, Häusler, *H.*, and Loewi, *O.*, diabetes and the action of insulin. X. Glycæmin, the hormone antagonistic to insulin; its importance in the mechanism of diabetes, A., 795.
- Dietz, *F. L.*, fuel oil, (P.), B., 386.
- Dietzel, *R.*, acid taste and hydrogen-ion concentration, A., 20.
- Dietzel, *R.*, and Rosenbaum, *E.*, lactic acid. III., A., 734.
lactic acid. IV. Partition of lactic acid between water and ether, and between water and amyl alcohol, A., 820.
determination of hydrogen-ion concentration of wine, B., 665.
- Dietzsch, *F.*, treatment of ores for extraction of values, (P.), B., 943*.
- Diez, *S.* See Maurer, *E.*
- Diggs, *S. H.*, and Buchler, *C. C.*, determination of oil in paraffin wax: direct refractometer method, B., 625.
- Dijatschkovski, *S. J.*, synthesis and properties of uranium colloids, A., 1137.
- Dijatschkovski, *S. J.*, and Dumanski, *A. V.*, preparation and properties of colloidal molybdic acid, A., 724.
- Dijatschkovski, *S. J.* See also Dumanski, *A. V.*
- Dill, *D. B.*, alcohol-soluble proteins in mixed solvents. II., A., 582.
- Dill, *D. B.*, Caulaert, *C. van*, Hurxthal, *L. M.*, Stoddard, *J. L.*, Bock, *A. V.*, and Henderson, *L. J.*, blood as a physico-chemical system. IV., A., 688.
- Dill, *D. B.*, and Clark, *P. B.*, formaldehyde in fish, B., 375.
- Dill, *D. B.*, Hurxthal, *L. M.*, Caulaert, *C. van*, Fölling, *A.*, and Bock, *A. V.*, carbon dioxide equilibrium in alveolar air and blood. II. Resting subjects, A., 984.
- Dill, *D. B.*, Lawrence, *J. S.*, Hurxthal, *L. M.*, and Bock, *A. V.*, carbon dioxide equilibrium in alveolar air and blood. III. Exercising subjects, A., 984.
- Dill, *D. B.* See also Bock, *A. V.*, and Henderson, *L. J.*
- Dilthey, *W.* [with Lachs, *A.*], reactivity of positive hydrogen atoms. I. Diphenacyl sulphide, A., 770.
- Di Mase, *G.* See Berlingozzi, *S.*, and Mazza, *F. P.*
- Dimbleby, *V.*, analysis of glasses, B., 654.
- Dimbleby, *V.*, English, *S.*, Firth, *E. M.*, Hodkin, *F. W.*, and Turner, *W. E. S.*, transparent zirconia-containing glasses, B., 410.
- Dimbleby, *V.*, and Turner, *W. E. S.*, relationship between chemical composition and the resistance of glasses to the action of chemical reagents. I., B., 12.
- Dimond, *D. W.* See Glasstone, *S.*
- Dimroth, *O.*, and Roos, *H.*, naphthazarin and 5:6-dihydroxy-1:4-naphthaquinone, A., 886.
- Dingle, *H.*, spectrum of fluorine, A., 1.
double normal state of the arc spectrum of fluorine, A., 82.
- Dingmann, *T.* See Schenck, *R.*
- Dinkier, *W.* See Grosse, *W.*

- Dinslage, E., and Windhausen, O., determination of the freshness of eggs, B., 91.
- Dinwiddie, J. G., and Du Pont de Nemours & Co., E. I., production of indophenol. (P.), B., 627.
- Dirac, P. A. M., quantum theory of the emission and absorption of radiation, A., 394.
- Dirks, B., nature and significance of the physiological soil reaction, B., 55.
- Dische, Z., characteristic colour reactions for lactic acid, methylglyoxal, and carbohydrates with carbazole and sulphuric acid, A., 1213.
- Dische, Z., and Laszlo, D., colorimetric determination of lactic acid in blood, A., 985.
- Dischendorfer, O., *o*-nitrobenzylidenedi- β -naphthol [*o*-nitrophenyl-di-(2-hydroxy- α -naphthyl)methane], A., 1201.
- Dischendorfer, O., and Danziger, W., oxidation of β -naphthol, A., 968.
- Dischendorfer, O., and Grillmayer, H., phytochemistry. III. and IV. Betulin. II. and III., A., 59, 249.
- Disney, J. H., and Kernot, J. C., production of emulsifying agents, (P.), B., 755.
- Distilleries des Deux-Sèvres. See Société Anonyme des Distilleries des Deux-Sèvres.
- Distillers Co., Ltd., and Meyer, E. A., manufacture and propagation of yeast, (P.), B., 792.
- District Chemical Co., Ltd. See Booser, J. R.
- Ditchburn, R. W., spectrophotometry, A., 1121.
- Ditmar, R., importance of soya-bean oil for softening and increasing the stretch of cold-vulcanised rubber, B., 51.
- relation between vulcanisation by sulphur chloride vapour and the permanence of the vulcanised products, B., 149.
- accelerators of vulcanisation: their influence towards one another and towards various rubber-compounding ingredients, B., 229.
- effect of the colour of inorganic and organic rubber pigments on organic accelerators of vulcanisation, B., 533.
- production of rubber articles from various preserved [rubber] latices and prevention of the development of tackiness, B., 564.
- rubber seed oil and its industrial application, B., 885.
- Ditter, J. H., manufacture of mortar-formers and mortar, (P.), B., 110.
- Dittler, E., determination of ferrous iron, A., 223.
- composition of the Lanzenkirchen meteorite, A., 642.
- Dittlinger, H., and Dittlinger Crow Process Co., hydration of lime, (P.), B., 877.
- Dittlinger Crow Process Co. See Dittlinger, H.
- Dittmar, H. R. See Walton, J. H.
- Dittmer, M., setting point or titre [as an indication of the purity of fats]? B., 882.
- Dittrich, K. See Eucken, A.
- Ditz, H., and May, R., autoxidation of lignin, B., 327.
- composition of technical calcium hypochlorite and comparison of its behaviour on heating with that of bleaching powder, B., 748.
- Dix, E. H., jun. See Aluminum Co. of America.
- Dix, F. E., and Rowse, L. H., optical constants of single-crystal bismuth, A., 503.
- Dixon, A. L., and Rodebush, W. H., heat capacities of liquid metals, A., 614.
- Dixon, B. E., and White, J. L., reaction between manganese salts and sodium hypochlorite in presence of certain other salts, A., 843.
- Dixon, H. B., and Higgins, W. F., ignition point of gases at different pressures, A., 115.
- burning gases in nitrous oxide, B., 513.
- Dixon, H. B. See also Coleman, D. A.
- Dixon, M., mechanism of oxidation-reduction potential, A., 209.
- effect of cyanide on the Schardinger enzyme, A., 901.
- action of carbon monoxide on certain oxidising enzymes, A., 1111.
- Dixon, M., and Tunnicliffe, H. E., reducing power of glutathione and cysteine, A., 961.
- Dixon, W. E., and De, P., pharmacological action of certain quinine derivatives, A., 1220.
- Doan, F. J., f. p. of cream, and detection of added water, B., 954.
- Dobloff, O., apparatus for depositing [and collecting] lump and granular material, (P.), B., 928.
- Dobroserdov, D., preparation and properties of aluminium perchlorate containing fifteen molecules of water, A., 530.
- Dobroserdov, D., perchlorates of aluminium with nine and six molecules of water; solubility, dehydration, and influence of heat, A., 530.
- Dobson, G. M. B., Harrison, D. N., and Lawrence, J., measurements of the amount of ozone in the earth's atmosphere and its relation to other geophysical conditions. II., A., 439.
- Doby, G., and Hibbard, R. P., ionic activation of plant enzymes in relation to nutrition. II. Invertase of sugar beets poor in potassium, A., 79.
- nutrient ions of plants and ion activation of plant enzymes, A., 798.
- Dodd, S., natural occurrence of boron compounds in cacao and cacao products, B., 762.
- Dodds, E. C. See Dickens, F.
- Dodek, S. M. See Cantarow, A.
- Dodge, B. F., and Davis, H. N., vapour pressure of liquid oxygen and nitrogen, A., 403.
- Dodge, B. F., and Dunbar, A. K., co-existing liquid and vapour phases of solutions of oxygen and nitrogen, A., 417.
- Dodonow, J., resolution of racemic *N*-ethyltetrahydroquinoline oxide, A., 1085.
- Döbling, H. See Huttig, G. F.
- Döhner, O. H., production of sheets, bands, wires, etc. from ferrosilicon alloys for the improvement of their electrical properties, (P.), B., 912.
- Doemens, simplification of work in the analysis of malt and beer, B., 424.
- Dömötör, G. See Kohn, M.
- Döpel, R., and Hirsch, R. von, polarisation of canal-ray light, A., 180.
- Doepke, O. See Roth, W. A.
- Dörflinger, G., improving the quality of Upper Silesian coke, B., 720.
- mechanical strength of coke, B., 898.
- Doering, C., and Doering, H. H., apparatus and continuous method for cooking cheese, (P.), B., 503.
- Döring, E. See I. G. Farbenind. A.-G.
- Doering, H. H. See Doering, C.
- Dörle, M., and Liehr, W., relationship of blood-sugar, cholesterol, and hypertonia, A., 988.
- Doerner, H. A., recovery of molybdenite from the ore, B., 414.
- Dörstling, G., roller mills for grinding and mixing, (P.), B., 735.
- Doewere, J., mesityl oxide and certain halogen derivatives, A., 134.
- Dogopolsky, I. See Muchin, G. E.
- Doherty Research Co. See Bjerregaard, A. P., Coast, J. W., jun., Griswold, R. G., and Truesdell, A. E.
- Dohme, A. R. L. See Sharp & Dohme.
- Dojarenko, M. N., isomeric changes in cyclic compounds with catalysts. I. Hydrocarbons. II. Dehydration of the alcohols C_4H_8O . III. Dehydration of the alcohols $C_6H_{12}O$, A., 138, 871.
- Dokkum, T. See Scheffer, F. E. G.
- Dolbear, S. H., Eastman, B. L., and Selective Treatment Co., Ltd., classifying crushed ore and the like, (P.), B., 583.
- Dolch, M., specific gravity of lignites and of the cokes therefrom, B., 97.
- Dolejšek, V., and Heyrovský, J., occurrence of divi-manganese in manganese compounds, A., 636.
- Dolgov, B. N. See Ipatiev, V. N.
- Dolhaine, H., calcium-phosphate compounds of the serum, A., 67.
- D'Olieslager, J. See Mund, W.
- Dolinek, A., determination of sugar in the beet by the [alcohol] extraction method, B., 663.
- Dolk, H. E., and Veen, A. G. van, formation of oxygen from carbon dioxide by protein-chlorophyll solutions, A., 703.
- Dolley, P. T. See Poindexter, R. W., jun.
- Dolt, M. L. See Crossley, M. L.
- Dombacher, P. See Fränkel, S.
- Dominik, V., production of nitrates and a dry mixture of chlorine and nitrosyl chloride, (P.), B., 330.
- conversion of alkali chlorides into nitrates with simultaneous production of chlorine, B., 700.
- separation of nitrosyl chloride from chlorine, (P.), B., 778.
- Domnick, W. C. E., and Deutsche Verkohlungs- & Destillations-ges.m.b.H., [peat] carbonising apparatus, (P.), B., 67.
- Domogalla, B. P. See Schuette, H. A.
- Domontovich, M., adaptability of the quinol electrode to the determination of p_H in expressed plant saps, A., 1225.

- Donaldson, J. W., volatility and carbonisation of oils for cylinder lubrication, B., 642.
- Donath, E. See Eucken, A.
- Donath, W. F. See Jansen, B. C. P.
- Donati, A., spectrographic analysis of certain eruptive products of Stromboli, A., 129.
- spectrographic identification of certain elements and the possibility of determining them by the arc spectrum. IV. Tungsten, A., 333.
- Donati, A. See also Porlezza, C.
- Donde, A. See Frumkin, A.
- Donnelly, J. L., and Mitchell, A. G., bile salt hæmolysis. I. Fixation of bile salts by serum as an absorption phenomenon, A., 371.
- Donnelly, J. F., conversion of heavy or complex hydrocarbon oils into lighter oils, (P.), B., 356.
- Donner, P. C., treatment for carotting fur, (P.), B., 579.
- Donovan, D. S., and Brown, J. R., producing commercial baking dough, (P.), B., 314.
- Donovan, J. E. See James, C.
- Dons, H. N., and Hallauer, N. A., recovery of oil from emulsions, (P.), B., 245.
- Dony, O., and Meunier, F., electrolysis of insoluble alkaline-earth compounds, and especially of barium carbonate, A., 833.
- Dony-Hénault, O., applications of passivity in electrolysis, A., 427.
- Dooley, F. J. See Barker, E. R.
- Doolittle, A. W. See Holmes, A. D.
- Dooremans, L. F., and Kreulen, D. J. W., determination of volatile matter in fuels, B., 929.
- Dorabalska, (Mlle.) A., and Yovanovitch, D. K., heat of radiation of radium, A., 182.
- heat of radiation of radiothorium, A., 606.
- Dorabalska, (Mlle.) A. See also Swientoslawski, W., and Yovanovitch, D. K.
- Dorcas, M. J. See Hoover, C. R.
- Dore, W. H. See Sponsler, O. L.
- Dorée, C., and Barton-Wright, E. C., lignin. I. Metalignin, a new type of alkali lignin, A., 597.
- Dorfman, J., intrinsic fields in ferromagnetic substances, A., 288.
- Dorfman, M. E., and Hildebrand, J. H., solubility. X. Solubility relations of stannic iodide, A., 405.
- Dorgelo, H. B., and Abbink, J. H., red and blue argon spectra in extreme ultra-violet, A., 389.
- Dorgelo, H. B., and Washington, T. P. K., duration of the metastable states of neon, argon, and helium, A., 490.
- Dorier, P. C. See Bert, L.
- Dorini, M., pharmacology of the two 5-phenyl-3-methylisoxazolecarboxylic acids and of other related substances, A., 991.
- Dorle, M., and Liehr, W., sugar content of capillary and venous blood after muscular activity, A., 787.
- Dorman, Long & Co., Ltd., Roelofsen, J. A., and Shuttleworth, L., treatment of spent acids obtained in refining hydrocarbons, (P.), B., 7.
- Dormann, H., Dormann, R., and Dormann, I., calcining Portland cement in rotating kilns, (P.), B., 966.
- Dormann, I. See Dormann, H.
- Dormann, R. See Dormann, H.
- Dorn, E., influence of the concentration of [nitric] acid on the acid consumption in the following of brass, B., 656.
- Dorr, J. V. N., and Bull, A. W., variables affecting lime used in causticising, B., 476.
- Dorr Co., [Fahrenwald] hydraulic classifiers, (P.), B., 543.
- Dorr Co. See also Bachmann, F.
- Dorrer, A. See I. G. Farbenind. A.-G.
- Dorronsoro, J. See Piña de Rubies, S.
- Dorsch, K. E., and Kallmann, H., ionisation processes in hydrogen, nitrogen, and argon, A., 1001.
- Dorsch, K. E. See also Kallmann, H.
- Dorsey, F. M., degasification of metals and its relation to corrosion, B., 941.
- Dorsey, N. E., measurement of surface tension, A., 404.
- Grüneisen's criteria for the capillary viscosimeter, A., 439.
- Dortzenbach, I. See Wernicke, R.
- Dosios, C., and Leucaditis, G., mechanism of the formation of ketones during the dry distillation of salts of organic acids, A., 769.
- Doskocil, A., growth of the typhoid bacillus, A., 1222.
- Doster, W. See Pringsheim, H.
- Dougal, J. W., facing or preserving walls and other surfaces, (P.), B., 412.
- Dougan, J. L. See Owen, B. J.
- Dougherty, G. T., rapid determination of silicon in 8-17% ferrosilicons, B., 192.
- Douglas, R., Loesch, H. G., and Douglas Pectin Corporation, emulsification of oils and fats and products made therefrom, (P.), B., 451.
- Douglas, S. M. See Harned, H. S.
- Douglas, W. F. See Parsons, L. B.
- Douglas Pectin Corporation, and Loesch, H. G., pectin preparations and manufacture of preserves and jellies, (P.), B., 890.
- Douglas Pectin Corporation. See also Douglas, R.
- Douglass, L. F., production of coloured photographic films, (P.), B., 798.
- Doumer, E., electrolysis of aqueous solutions of pure oxalic acid, A., 427.
- Dous, and Ziegenspeck, fungus chitin, A., 383.
- Douthitt, F. H., apparatus for drying liquids [foods], (P.), B., 26.
- Dovan Chemical Corporation. See Weiss, M. L.
- Dover, M. V., and Cromwell, J. H., changes in properties of four unblended mineral oils produced by prolonged treatment with ozono, B., 514.
- Dovey, E. R., rapid determination of opium in stomach contents, A., 264.
- Dow, H. H., Barstow, E. O., and Dow Chemical Co., recovery of bromine [from brine], (P.), B., 252.
- Dow, H. H., Gann, J. A., and Dow Chemical Co., light-metal alloy, (P.), B., 114.
- Dow, (Miss) I. C. See Smith, R. C.
- Dow, O. D. See Supplee, G. C.
- Dow, W. T. See Cameron, A. M.
- Dow Chemical Co. See Britton, E. C., Dow, H. H., Hale, W. J., Mills, L. E., and Smith, A. K.
- Dowdell, R. L., and Harder, O. E., decomposition of austenite during quenching, B., 413.
- effect of tempering on the decomposition of austenite, B., 604.
- effect of stress on the decomposition of austenite, B., 631.
- Dowdell, R. L. See also Harder, O. E.
- Dowds, J. H., distribution of reducing sugar and mode of glycolysis in human blood, A., 68.
- Downes, H. I., and Perman, E. P., method of measuring vapour pressure by air bubbling, A., 194, 615*.
- Downes, T. W., non-rusting steel for flying machines, B., 487.
- Downs, C., and Bellwood, R. A., extraction of oil from vegetable seeds, etc., (P.), B., 915.
- Downs, C. R., production of a catalyst carrier, (P.), B., 768.
- Downs, C. R., and Barrett Co., promoting catalytic reactions, (P.), B., 60.
- Downs, W. F., method and apparatus for distilling liquids, (P.), B., 207.
- Dowson & Mason Gas Plant Co., Ltd., and Paton, J., gas-fired annealing furnace, (P.), B., 970.
- Dox, A. W., action of the Grignard reagent on alkylbarbituric acids, A., 1087.
- Dox, A. W., and Hjort, A. M., comparative pharmacology of certain trialkyl- and dialkyl-barbituric acids, A., 1219.
- Dox, A. W., and Parke, Davis & Co., sec.-butylallylbarbituric acid, (P.), B., 317.
- 5-ethyl-5-n-hexylbarbituric acid, (P.), B., 734.
- Doyon, M., and Vial, I., anticoagulating action and nuclear origin of a substance extracted from the mesenteric ganglion, A., 168.
- Drähne, W., heating distillation chambers, (P.), B., 180.
- Draisbach, F. See Benckiser, T.
- Drakawa, S. See Itano, A.
- Drake, C. J. See Hixon, R. M.
- Drake, J. W. See Harrison, F. J.
- Drake, R. E. See Flintkote Co.
- Drake-Law, H., colours in foodstuffs, B., 90.
- Drakeley, T. J. See Armstrong, D., Hallas, C. A., and White, M. K.
- Drath, G., and Sauerwald, F., surface tension of molten metals and alloys. II. Surface tension of tin, lead, antimony, copper, tin-bismuth, lead-bismuth, copper-antimony, and copper-tin alloys, and cast iron, A., 723.
- Drathen, E. von. See Chemische Fabrik Coswig-Anhalt G.m.b.H.
- Draut, L., and Raulot-Lapointe, C., apparatus for the electrical purification of gases, (P.), B., 530.

- Dreaper, W. P., alloys [for jets used in spinning artificial silk], (P.), B., 47.
 manufacture of artificial silk from viscose solutions, (P.), B., 407*.
 manufacture of artificial silk, etc., (P.), B., 745.
- Drefahl, L. C., and Grasselli Chemical Co., wood preservation, (P.), B., 166.
 distillation of hydrochloric acid, (P.), B., 521.
- Drege, M. H. See Freyssen, R. P.
- Dreifuss, M. See Stella A.-G.
- Dreisch, T., infra-red absorption of coloured glasses and salt solutions, A., 186.
 absorption of quartz and fused silica below 4.1μ , A., 496.
 absorption of optical glasses and borax below 4.1μ , A., 496.
- Drescher, H. A. E., Harris, J. E. G., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing [sulphuric esters of leuco-vat dyes], (P.), B., 697.
- Drescher, H. A. E., Smith, W., Thomas, J., and Scottish Dyes, Ltd., production of anthraquinone derivatives, (P.), B., 246.
- Drescher, H. A. E. See also Thomas, J., Woodcock, W. G., and Wylam, B.
- Drescher, J., asphalt substitute, (P.), B., 404.
- Dresdener Chromo- & Kunstdruck-Papierfabrik Krause & Baumann Akt.-Ges., and Schwalbe, H., dissolving out lignin and similar incrusting substances from wood and other plant fibre materials, such as cellulose, (P.), B., 811.
- Dresel, K., influence of arsenious acid on respiration and fermentation, A., 73.
- Dressler, C., and American Dressler Tunnel Kilns, Inc., continuous [brick] kiln and drier, (P.), B., 524.
 tunnel kiln, (P.), B., 927.
- Dressler Tunnel Ovens, Ltd., and Vermoreken, O., tunnel ovens, (P.), B., 109.
- Drew, H. D. K., cyclic organo-metallic compounds. II. Tellurium compounds, a new series of intensely coloured tellurium derivatives; migration of anions in solids, A., 164.
- Drew, H. D. K., Goodyear, E. H., and Haworth, W. N., lactones derived from simple sugars, A., 750.
- Drew, H. D. K., and Haworth, W. N., polymerisation. I. $\beta\gamma\delta$ -Trimethyl β -arabonolactone, A., 544.
- Drew, H. D. K., and Thomason, R. W., cyclic organo-metallic compounds. III. Nitro- and amino-derivatives of phenox-tellurine, A., 267.
- Drew, J. P., and Pyne, G. T., changes during storage in the composition of mangels, B., 376.
- Drewsen, V., treating waste sodium monosulphite liquors, (P.), B., 138.
- Drewsen, V., and West Virginia Pulp & Paper Co., treating waste magnesium monosulphite cooking liquor, (P.), B., 139.
 process and apparatus for the manufacture of concentrated carbon dioxide, (P.), B., 299.
 manufacture of ligno-tanning material from waste sulphite liquor, (P.), B., 535.
 manufacture of magnesium oxide and calcium pentasulphide, (P.), B., 629.
- Drewsen, V. See also West Virginia Pulp & Paper Co.
- Dreyfus, C., manufacture of products containing cellulose, (P.), B., 71*.
- Dreyfus, C., and Celanese Corporation of America, manufacture of textiles, (P.), B., 774.
- Dreyfus, C., Miles, G. W., and American Cellulose & Chemical Manufacturing Co., Ltd., composition of cellulose ethers and esters with hygroscopic substances; [flexible films], (P.), B., 228.
- Dreyfus, H., manufacture of methyl alcohol, (P.), B., 124.
 manufacture of acetic acid, (P.), B., 125, 263, 521.
 production of keten, (P.), B., 125.
 manufacture of textile fabrics [resembling crêpe], (P.), B., 214.
 production of oxygen-containing and other organic compounds, (P.), B., 237.
 treatment of cellulosic materials and production of cellulose derivatives, (P.), B., 247.
 manufacture of cellulose derivatives, (P.), B., 248, 774, 872.
 artificial textile products, (P.), B., 295.
 dyeing, printing, and stencilling of products consisting of or containing cellulose esters or ethers, (P.), B., 650.
 production of oxygen-containing aliphatic compounds [keten, acetaldehyde, etc.], (P.), B., 764.
- Driessen Mareeuw, W. P. H. van den, determination of phosphorus in oils, B., 27.
- Driessen Mareeuw, W. P. H. van den, rapid reaction to distinguish anise oil from star anise oil, B., 267.
- Drinker, K. R., Fehnel, J. W., and Marsh, M., normal excretion of zinc in urine and faeces of man, A., 478.
- Drinker, K. R., Thompson, P. K., and Marsh, M., effect of long-continued ingestion of zinc oxide by dogs and cats; excretion and storage of zinc, A., 482.
 effect of long-continued ingestion of zinc compounds; relation of zinc excretion to zinc intake, A., 992.
- Drinker, K. R. See also Thompson, P. K.
- Driver, J. E., resins formed by condensation of phenol with aromatic hydroxy-aldehydes, B., 661.
- Drossbach, P., electrode potential of aluminium, A., 421.
 calculation of combustion temperatures, A., 940.
 electrolytic determination of alkali, A., 953.
 potentiometric titration of iron and aluminium with bases, A., 1047.
- Druce, J. G. F., interaction of manganese salts and permanganates. I. Action of potassium permanganate on manganese sulphate and determination of manganese, A., 332.
 interaction of manganese salts and permanganates. II. Action of manganese chloride on permanganates, A., 433.
- Drucker, C., effect of intermediate solutions on diffusion potentials, A., 420.
- Drucker, J. See I. G. Farbenind. A.-G.
- Druif, J. H., mineralogical composition of some soils of the Netherlands, A., 955.
- Drumm, J. J. See Nesbitt, S. G. M.
- Drumm, P. J. See Reilly, J.
- Drummond, A. A., behaviour of phenolic resins, B., 496.
 synthetic resins of the phenol-aldehyde type, (P.), B., 756.
- Drummond, A. M., and Gibson, D. T., co-ordinated mercaptides, A., 156.
- Drummond, D. H., free energy of formation of phosphine, A., 940.
- Drummond, J. C., chemical aspects of organic evolution, B., 428.
- Drummond, J. C., and Marrian, G. F., physiological rôle of vitamin-B; relation of vitamin-B to tissue oxidations, A., 78.
- Drummond, J. C. See also Hassan, A., Kon, S. K., and Reader, V.
- Drummond, (Miss) R. See Spencer, J. F.
- Drummond, R. P., and Pacific Cast Iron Pipe & Foundry Co., composition of matter [iron alloy], (P.), B., 337.
- Druschke, K. See Böttger, W.
- Druyvesteyn, M. J., X-ray spectra of the second order, A., 804.
- Druyvesteyn, M. J. See also Coster, D.
- Druzhinin, D., action of calcium carbonate and phosphorite on the composition of soil solutions and aqueous extracts from soils, B., 887.
- Dryden, H. E., relationship of roady-formed soluble carbohydrates in malt to extract, B., 760.
- Drysdale, H., and Smith & Blyth, Ltd., S., mills for grinding paints, etc., (P.), B., 708.
- Dubac, O., increasing the strength and elasticity of vegetable fibres and products manufactured therefrom or for crinkling same, (P.), B., 247.
- Dubaquié, J., sulphurous acid and the keeping of white wines in bottle, B., 25.
- Dubbs, C. P., and Universal Oil Products Co., [cracking] treatment of hydrocarbon oils, (P.), B., 517, 961.
 conversion of oils, (P.), B., 626.
 treating petroleum and other hydrocarbons, (P.), B., 673.
- Dubbs, C. P. See also Universal Oil Products Co.
- Dubief, J., laws of viscosity of fluids, A., 195.
- Dubien, M. See Job, A.
- Dubilier Condenser Co., Ltd., and Pfäffer, E., metallising insulating sheets or bands, (P.), B., 390.
- Dubilier Condenser Corporation. See Capicotto, J. V., and Nyman, A.
- Dubin, H. E., and Metz Laboratories, Inc., H. A., edible fat composition, (P.), B., 530.
- Dubin, H. E. See also Funk, C.
- Dubin, M. M., diffusion of electrolytes, A., 724.
 adhesive forces in solutions. IX. Adsorption of substances from dilute aqueous solutions in presence of non-electrolytes, A., 929.
 adhesive forces in solutions. VII. Adsorption of substances from dilute aqueous solutions, A., 929*.
- Duboin, A., application of a general method for the synthesis of silicates to iron and neodymium, A., 951.
- Dubois, E., Volta effect, A., 832.
- Dubos, R. J. See Waksman, S. A.

- Duboux, *M.*, and Frommelt, *J.*, second dissociation constants of certain dibasic acids, *A.*, 515.
- DuBridge, *L. A.*, photo-electric properties of thoroughly out-gassed platinum, *A.*, 391.
- Dubrisay, *R.*, surface phenomena and adsorption at the contact of two liquid phases, *A.*, 618, 822.
- application of the ionic theory of acidity to practical alkali-metry, with special reference to nicotine, *A.*, 680.
- action of heat on the surface properties of kaolin, *B.*, 12.
- Dubrisay, *R.*, and Bravard, *J.*, influence of adsorbing materials on chemical equilibria in solution, *A.*, 827.
- Dubský, *J. V.*, and Okáč, *A.*, reactions of dyes with nitrous acid, *A.*, 688.
- reactions of nitrous acid, *A.*, 1160.
- Ducasse. See Carrière, *E.*
- Ducháček, *F.*, and Zila, *V. L.*, standardisation of malt analysis, *B.*, 423.
- Duchemin, *A. C. D.*, gas scrubber, (*P.*), *B.*, 805.
- Duchemin, *E.* See Chauvenet, *E.*
- Duckham, *A. M.*, and Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd., apparatus for the heat treatment of materials [*e.g.*, tar], (*P.*), *B.*, 160*.
- Duclaux, *J.*, adsorption in its relation to catalysis and enzyme actions, *A.*, 107.
- structure of soil colloids, *A.*, 401.
- gas theories and the equation of state, *A.*, 927.
- clarification of beverages, (*P.*), *B.*, 264.
- Dudding, *B. P.*, and Singleton, *W.*, resistance of glass to chemical attack, *B.*, 12.
- Dudek, *H.* See Steinkopf, *W.*
- Duden, *E. G.*, and Scaife, *W. B.*, & Sons, process of regenerating zeolites, (*P.*), *B.*, 206.
- Dudley, *H. W.*, Rosenheim, *G.*, and Starling, *W. W.*, constitution and synthesis of spermidine, a base isolated from animal tissues, *A.*, 343.
- Dudley, *H. W.* See also Best, *C. H.*
- Dützmann, *A.* See Merck, *E.*
- Dufay, *J.* See Cabannes, *J.*
- Dufay, *L.*, photographic printing in colours, (*P.*), *B.*, 715*.
- Dufay, *L.*, and Société Anonyme Compagnie d'Exploitation des Procédés de Photographie en Couleurs *L. Dufay*, colour photography or cinematography, (*P.*), *B.*, 461.
- Duff, *G. K.* See McKenzie, *A.*
- Duff, *J. C.*, and Bills, *E. J.*, complex metallic amines. IX. Introduction of nitrophenol radicals into cobaltamine complexes; distinctive behaviour of mononitrophenoxides, *A.*, 1064.
- Duffee, *P. Y.* See Motor Fuel Corporation.
- Duffendack, *O. S.*, and Fox, *G. W.*, radiating potentials of the band systems of carbon monoxide, *A.*, 497.
- Duffendack, *O. S.*, and Smith, *H. L.*, simultaneous ionisation and excitation by foreign ions in a gaseous mixture, *A.*, 604.
- Duffendack, *O. S.* See also Fox, *G. W.*, and Fruth, *H. F.*
- Duffield, *F. L.*, pulverisers, (*P.*), *B.*, 895.
- manufacture of bricks, blocks, etc., from materials typifiable by dolomite, (*P.*), *B.*, 909.
- Duffieux, *M.*, production of the continuous spectrum of mercury by rolling it in a vacuum, *A.*, 706.
- Duffin, *W. M.* See Farmer, *E. H.*
- Dufford, *R. T.*, Nightingale, (*Miss*) *D.*, and Gaddum, *L. W.*, luminescence of Grignard compounds in electric and magnetic fields, and related electrical phenomena, *A.*, 918.
- Duflho, *E.* See Barthe, *L.*
- Dufraisse, *C.*, and Demontvignier, *M.*, ethylideneacetophenone (phenyl propenyl ketone) and β -methoxybutyrophenone, *A.*, 878.
- Dufraisse, *C.*, and Gailliot, *P.*, fractures of acetaldehyde gels: rhythmic production of furrows, *A.*, 191.
- Dufraisse, *C.*, and Gillet, *A.*, stereoisomerism and isomorphism of the phenyl styryl ketones, *A.*, 58, 461.
- Dufraisse, *C.*, and Moureu, *H.*, preparation of α -diketones from $\alpha\beta$ -unsaturated ketones, *A.*, 246, 1173.
- action of piperidine on α -bromobenzylideneacetophenone, *A.*, 571.
- action of piperidine on some α -bromo- $\alpha\beta$ -unsaturated ketones, *A.*, 884.
- Dufraisse, *C.* See also Moureu, *C.*
- Dufrénoy, *J.*, production of nitrites by *Verticillium* in pure culture, *A.*, 1227.
- Dufton, *A. F.*, and Brady, *F. L.*, corrosion of copper pipes, *B.*, 782.
- Dugué, *J.*, modifications [in rubber technology] resulting from applications of the antioxygenic theory, *B.*, 756.
- Duhamel, *E. C.*, and Compagnie Générale des Industries Textiles, washing, cleaning, or otherwise treating wools, silk, soiled fabrics, or other fibrous textile materials, (*P.*), *B.*, 70.
- washing or cleaning of wool, (*P.*), *B.*, 872.
- Duhme, *E.*, and Lotz, *A.*, Miethe and Stammreich's work on gold from mercury, *A.*, 530.
- Duhme, *E.* See Siemens & Halske Akt.-Ges.
- Duijts, *J. A.*, separation of tars, tar oils, etc. into fractions, (*P.*), *B.*, 597.
- Duin, *C. F. van*, principle of induced alternate polarity in organic compounds, and the general and *ortho*-effects of substituents, *A.*, 662.
- preparation of liquid nickel carbonyl, *A.*, 743.
- Duin, *C. F. van*, and Koolhaas, *D. R.*, action of *m*- and *p*-nitro-aniline on 2:3:4:6-tetranitrophenylmethylnitroamine, *A.*, 757.
- Duisberg, *W.*, Hentrich, *W.*, Zeh, *L.*, and Grasselli Dyestuff Corporation, dyeing cellulose compounds [artificial silk], (*P.*), *B.*, 139.
- manufacture of aryl esters of nitroaminobenzenesulphonic acids, (*P.*), *B.*, 903*.
- Duisberg, *W.*, Hentrich, *W.*, Zeh, *L.*, Huismann, *J.*, and Grasselli Dyestuff Corporation, naphthylaminoalkylamines, (*P.*), *B.*, 838*.
- Duisberg, *W.* See also I. G. Farbenind. Akt.-Ges.
- Duisberger Kupferhütte, recovery of copper, zinc, and other metals from solutions containing chlorides and sulphates, (*P.*), *B.*, 784.
- Duisberger Kupferhütte. See also Mattenklodt, *K.*
- Duke-Elder, *S.*, biochemistry of the aqueous humour, *A.*, 272.
- Dulac, *J.* See Maume, *L.*
- Dulou, *R.* See Subervie, *A. R.*
- Dumanois, *E. P.*, motor spirit, (*P.*), *B.*, 245.
- Dumanski, *A. V.*, colloidal properties of peat, *A.*, 908; *B.*, 289.
- Dumanski, *A. V.*, and Buntin, *A. P.*, synthesis of colloidal tungstic acid, *A.*, 108.
- Dumanski, *A. V.*, Buntin, *A. P.*, Dijatschkovski, *S. J.*, and Kniga, *A. G.*, formation of colloids from complex ions, *A.*, 308.
- Dumanski, *A. V.*, Buntin, *A. P.*, and Kniga, *A. G.*, production of hydrosols, *A.*, 307.
- Dumanski, *A. V.* See also Dijatschkovski, *S. J.*
- Dumars, *H.*, Bowen, *W. S.*, and Bowen-Dumars Power Corporation, means for gas separation, (*P.*), *B.*, 356.
- Dumas, *G.*, and Société Anonyme des Chaux et Ciments de Lafarge et du Teil, manufacture of fused cement and apparatus therefor, (*P.*), *B.*, 190.
- Dumond, *E. J. E.*, purifying, enriching, or refining crude graphite, (*P.*), *B.*, 182*.
- Dumont, *J.*, relative weights of reacting substances in colloidal flocculations, *B.*, 343.
- Dumoulin, *J. M.* See Delaby, *R.*
- Duñaiturria, *S.* See Willstätter, *R.*
- Dunbar, *A. K.* See Dodge, *B. F.*
- Dunbar, *C. O.* See Holland, *E. B.*
- Dunbar, *V. E.* See McFarlane, *J.*
- Dunealfe, *R.* See British Glues & Chemicals, Ltd.
- Duncan, *H. M.* See Parsons, (*Sir*) *C. A.*
- Dundon, *M. L.*, colour-sensitising photographic plates by bathing, *B.*, 174.
- Dungan, *G. H.*, influence of plant injury and root rot disease on the physical and chemical composition of maize grain, *A.*, 996.
- Dunham, *E. M.*, effect of high voltages on tantalum anodes, *A.*, 1153.
- Dunin, *A. A.* See Arbusov, *A. E.*
- Dunkel, *T.*, solubility in citric acid of the phosphoric acid of basic slag, *B.*, 656.
- Dunkle, *C. G.* See Coward, *H. F.*
- Dunlap, *F. L.*, test-bakes and certain of their chemical and physical aspects, *B.*, 396.
- Dunlap, *H. L.* See Weber, *P.*
- Dunlop Rubber Co., Ltd., Lakeman, *A.*, and MacCabe, *F. C.*, protection of metal surfaces, (*P.*), *B.*, 970.
- Dunlop Rubber Co., Ltd., and Simpson, *E.*, device for registering the degrees of hardness of vulcanised rubber or other resilient materials, (*P.*), *B.*, 150.
- Dunlop Rubber Co., Ltd., and Truesdale, *R.*, substitutes for catgut and similar animal products, (*P.*), *B.*, 214.
- Dunlop Rubber Co., Ltd., Young, *H. C.*, and Burr, *H. O.*, mastication of rubber and apparatus therefor, (*P.*), *B.*, 19.

- Dunman, H. B., and Legg, H. B., extraction of wax from filter-cake or residue of cane sugar manufacture, (P.), B., 665.
- Dunn, H. K., changes in the photo-electric threshold of mercury, A., 603.
- Dunn, J. S., diffusion of zinc in the α -series of solid solutions in copper, A., 105.
- diffusion law as applied to diffusion in solid solution, B., 369.
- Dunn, M. S., basic proteins. I. Nitrogen distribution and percentages of amino-acids in the protamine of the sardine, *Sardinia caerulea*, A., 69.
- Dunn, M. S., and Hollombe, B. S., iodine number of California sardine oil, B., 585.
- Dunnicliff, H. B., and Lal, K., determination of free mercury in commercial products, B., 617.
- Dunnicliff, H. B. See also Bhatnagar, S. S.
- Dunning, F., and Reid, E. E., azo-dyes containing antimony, A., 65.
- Dunning, F. See also Harden, W. C.
- Du Noyer, P. L., anomaly in the rate of evaporation of solutions of sodium oleate and of digitonin at high dilutions, A., 510.
- advantages of the ring method for the study of the surface equilibria of colloidal solutions, A., 514.
- determination of specific gravity of small amounts of liquids and solids, A., 1163.
- Dunoyer, L., measurement of gases dissolved in water, A., 845.
- Dunsmore, A. F., [basket cover for] hydro-extractors or centrifugal machines, (P.), B., 434.
- Dunsmore, M. C., and Ritchie, D. W., screens of the rotary type for separating various sizes of granular material such as ore, coal, etc., (P.), B., 690.
- Dupérier, A. See Cabrera, B.
- Dupin, (Mlle.) M. See Boutaric, A.
- Dupire, A. P. H., electrolytic apparatus more particularly adapted for the electrolysis of alkali-metal chlorides, (P.), B., 607.
- Duplan, F., distillation and carbonisation retort and process of operating the same, (P.), B., 246*.
- Dupont, and Pascaud, catalytic action of boracetic anhydride in the combination of organic acids with pinene and nopinene, A., 883.
- Dupont, A. J., distillation plant for alcoholic liquids, (P.), B., 929.
- Du Pont, E. See Du Pont, F. I.
- Du Pont, F. I., and Delaware Chemical Engineering Co., petroleum still, (P.), B., 162.
- Du Pont, F. I., Du Pont, E., and U.S.F. Powder Co., manufacture of smokeless [flashless] explosive powder, (P.), B., 542.
- manufacture of a smokeless [flashless] explosive powder; flashless cannon powder, (P.), B., 542.
- Dupont, G., action of amines and ammonia on acetylenic γ -diketones, A., 1055.
- electronic theory of valency; stereochemical representation of the elements, A., 1128.
- Dupont, G. H., purification of abietic acid, (P.), B., 452*.
- Dupont, J., and Labaune, L., determination of total alcohols in citronella oil, B., 618.
- Dupont, L. See Darrasse, L.
- Du Pont de Nemours & Co., E. I., accelerators for rubber vulcanisation, (P.), B., 150.
- water-insoluble colours or dyes, (P.), B., 551.
- production of *N*-dihydro-1:2:1':2'-anthraquinoneazine, (P.), B., 551*.
- recovery of antimony in flavanthrone manufacture, (P.), B., 597.
- compositions containing organic mercury compounds, (P.), B., 734.
- catalytic oxidation of hydrocarbons, (P.), B., 772.
- manufacture of vulcanisation accelerators and products obtained thereby, (P.), B., 824.
- Du Pont de Nemours & Co., E. I. See also Bergheim, F. H., Bishop, O. M., Booge, J. E., Bridgwater, E. R., Burke, C. E., Caswell, R. G., Dinwiddie, J. G., Elley, H. W., Engelmann, M., Essex, H., Flaherty, E. M., Gibbs, H. D., Hitch, E. F., Jacobs, C. B., Manss, W. A., Marshall, J., Moran, R. C., Pitman, E. C., Pratt, L. S., Sachs, J. H., Schanche, H. G., Schwartz, G. L., Scott, W., Swint, W. R., Taylor, G. B., and Varnes, S. K.
- Du Pont Viscoloid Co. See Burke, C. E.
- Duquenois, P. See Terroine, E. F.
- "Dural." See "Metallique."
- Durand, J. F., preparation of tetraiodomethane, A., 1166.
- Durand, J. F., and Banos, M., addition of acetylene and carbon monoxide: synthesis of benzoquinone, A., 566.
- Durand, J. F., and Naves, R., compound containing a positive chlorine atom: trichloromethanesulphonyl chloride, A., 645.
- Durand & Huguenin Akt.-Ges., manufacture of mordant [azo] dyes, (P.), B., 771.
- dyeing animal fibres, (P.), B., 775.
- dyeing animal fibres [with indigosols], (P.), B., 775.
- Durand & Huguenin Société Anonyme, manufacture of acid dyes of the rhodamine series, (P.), B., 772.
- Durand & Huguenin Société Anonyme. See also I. G. Farbenind. A.-G., Peterhauser, F., and Wolfram, A.
- Durant, H. T. See Edwards, G. W.
- Duratex Corporation. See Wilson, John A.
- Durban, S. A. See Felsing, W. A.
- Durdik, F., test for platinum, B., 193.
- Duré, stretching processes for [viscose] artificial silk, B., 838.
- Duret-Delage, Y. See Steppuhn, O.
- Duro Co. See Eisenhauer, C. P.
- Durrant, R. G. See Bassett, H.
- D'Urso, S. See Minunni, G.
- Du Sault, L. See Loeb, L. B.
- Dushman, S., and Ewald, J. W., electron emission from thoriated tungsten, A., 707.
- Dusollier, G. See Job, A.
- Dussler, E., and Gerlach, W., iron crystals. III. Magnetic properties in different directions, A., 924.
- Dustan, F. P., and Walrath, J., [aluminium] alloy, (P.), B., 114.
- Dutcher, R. A., Honeywell, H. E., and Dahle, C. E., vitamins. XVI. Vitamin-A in dried milks made by vacuum and aeration methods, B., 954.
- Dutheil, J., and Dutheil, (Mme.) M., absorption of light by ozone between 3050 and 3400 Å., A., 184.
- Dutheil, (Mme.) M. See Dutheil, J.
- Du Toit, P. J. See Theiler, A.
- Dutoit, W., dissociation pressures of calcium, strontium, and barium carbonates, A., 416.
- Dutt, P. K., anilopyrine and antipyrine, A., 260.
- Dutt, P. K. See also Langman, (Miss) E. M.
- Dutt, S., theory of colour on the basis of molecular strain. II., A., 1006.
- Dutt, S. See also Barat, K. K., Dhar, P. B., Dhar, P. R., and Tewari, J. D.
- Duval, C., cobaltiboroamine, A., 325.
- Duval, M., and Portier, P., total carbon dioxide content of the blood of marine and of fresh-water invertebrates, A., 786.
- Du Vigneaud, V., is insulin inactivated by dextrose? A., 701.
- Dvořák. See Stoklasa, J.
- Dvorkovitz, P., destructive distillation of solid carbonaceous materials, (P.), B., 437*.
- manufacture of hard coke, (P.), B., 866.
- Dwight & Lloyd Metallurgical Co., [calcining] treatment of [finely-divided] carbonate materials, (P.), B., 777.
- Dwight & Lloyd Metallurgical Co., and Hyde, R. W., method and apparatus for [heat]-treating materials, (P.), B., 897.
- Dwight & Lloyd Metallurgical Co., and Knox, J., sintering machine, (P.), B., 492.
- Dworkin, S. See Cassidy, G. J., and Finney, W. H.
- Dworzak, R., ester condensation: replacement of functional groups under the action of aluminium ethoxide, A., 42.
- Dworzak, R., and Pifferling, P., α -bromo- and α -hydroxy-aldehydes, A., 1055.
- Dworzak, R. See also Franke, A.
- Dyche-Teague, F. C., rubber compositions, (P.), B., 452.
- Dyck, W. J. D. van, Becquerel effect with copper oxide electrodes, A., 832.
- Dyckerhoff, E. See Schmidt, Ernst.
- Dyckerhoff, W. See Hansen, W. C.
- Dye, M., Medlock, O. C., and Crist, J. W., vitamin-A and greenness in plant tissue. I. Relative vitamin-A content of head and leaf lettuce, A., 904.
- Dyk, L. A. van, production of a polymerised vinyl chloride [β -caouprene chloride], (P.), B., 564.
- Dyke, H. B. van, and Schurmeyer, A., decolorisation of light-green by male and female sera, A., 370.
- Dymond, E. G., electron scattering in helium, A., 392.
- excitation of high-velocity electrons, A., 913.
- Dyson, G. M., George, H. J., and Hunter, R. F., interaction of thiocarbonyl chloride and chloro-substituted anilines and the inhibitory action of *ortho*-substituents, A., 141.

- Dyson, G. M., George, H. J., and Hunter, R. F., inhibitory effect of substituents in chemical reactions. I. Reactivity of the amino-group in substituted arylamines, A., 350.
- Dyson, G. M., and Hunter, R. F., preparation of α -naphthylthio carbimide from α -naphthylamine and thiocarbonyl chloride, A., 236*.
- Dyson, G. M., Hunter, R. F., and Morris, R. W., aminobenzthiazoles. VIII. Effect of polar substituents on the formation and stability of nuclear-substituted 1-aminobenzthiazole bromides, A., 680.
- Dyson, G. M., Hunter, R. F., and Soyka, C., aminobenzthiazoles. VII. The 2-alkylamino- β -naphththiazole system, A., 263.
- Dyson, G. M. See also British Dyestuffs Corporation.
- Dysterheft, G. See Harding, E. P.
- Dziewoński, K., Galitzerówna, (Mlle.) H., and Kocwa, A., constitution in the acenaphthene and naphthalene series, A., 359.
- Dziewoński, K., and Orzelski, T., acenaphthene. III. Nitro- and amino derivatives of acenaphthenemonosulphonic acids, A., 347.
- Dziewoński, K., and (Mme.) Zahrzewska-Baranowska, M., acenaphthene. IV. 3-Chloroacenaphthene and its reactions, A., 871.
- E.
- E., J. W., [chemical formulae of mineral compounds], A., 642.
- Eadie, G. S., liver amylase, A., 482.
- Eadie, R. G. W., pitch softening points, B., 358.
- Eagle, S. H., nature of urinary sugars, A., 273.
- Eagles, B. A., and Johnson, T. B., biochemistry of sulphur. I. Identity of ergothioneine from ergot with sympectothion and thiasine from blood, A., 369.
- Eagles, B. A. See also Harding, V. J., and Hunter, G.
- Earl, J. C., and Kenner, J., recovery of pinene from its nitroschloride, A., 773.
- Earl, J. C., and Trikojus, M. T., constitution of australol, A., 52.
- Earlenbaugh, L., effect of monocalcium phosphate upon the viscosity of acidulated flour-in-water suspensions, B., 396.
- Early, J. N., alloy [for hard-chilled castings], (P.), B., 705.
- Easterwood, H. W. See Brassert, H. A., and Waggaman, W. H.
- Eastman, E. L. See Dolbear, S. H.
- Eastman, E. D., thermodynamics of non-isothermal systems, A., 419.
- Eastman, I. M. See Cislak, F. E.
- Eastman, W. H., and Taylor, W. L., effect of foreign oleaginous seeds, when crushed with flax seed, on the drying and bodying properties of linseed oil, B., 754.
- Eastman Kodak Co. See Baybutt, R., Carroll, S. J., Farrow, S. J. jun., Hewitson, E. H., Seel, P. C., Sheppard, S. E., and Stinchfield, R. L.
- Eaton, B. J., and Bishop, R. O., gambier: its extraction and valuation, B., 230.
- variation in plantation rubber, B., 948.
- Eaton, B. J., Georgi, C. D. V., and Teik, G. L., jelutong, B., 532.
- Eaton, E. P., and West, E. S., volumetric determination of alkoxy-groups, A., 1213.
- Eaton, W. S., chromium plating machine, (P.), B., 848.
- Ebel, F., formation of additive compounds as prelude to chemical changes, A., 1177.
- Ebel, F., and Goldberg, M. W., action of acetic anhydride containing sulphoacetic acid on aliphatic double linkings, A., 1168.
- Eberlin, L. W., and Burgess, A. M., impregnating wood with paraffin, B., 189.
- Eberlin, L. W. See also Kodak Ltd., and Sheppard, S. E.
- Eberly, N. E. See White, S. S., Dental Manufacturing Co.
- Ebers, K., obtaining heavy spar and a paint or a material for cement manufacture, (P.), B., 254.
- Eberson, F., tuberculosis. VIII. Identification of a skin-reacting substance in tuberculous sera, A., 588.
- Ebert, F. See Ruff, O.
- Ebert, H., measurement of moisture content, A., 221.
- Ebert, L., hydrogen-ion concentration, hydrogen-ion activity, and the newer solution theories, A., 20.
- Ebert, L., and Keesom, W. H., dielectric constants of liquid and solid nitrogen, A., 293.
- Ebert, W. See Schenck, R.
- Ebster, H. See Ludwig, W.
- Eccles, A. See Baker, J. W.
- Eck, P. N. van, Günzburg's reaction for free hydrochloric acid, A., 434.
- reducing power of sugars, A., 545.
- Eck, R. See Emmert, B.
- Eckart, C., hydrogen spectrum in the new quantum theory, A., 81.
- Eckdahl, W. P., clay analysis for control purposes, B., 557.
- Eckel, E. C., manufacture of cement, (P.), B., 604*.
- Eckell, J. See Thiel, A.
- Eckermann, R., method for decreasing the toxic action of cocaines. (P.), B., 974.
- Eckert, A., oxidations in light, A., 881.
- Eckert, A., and Hampel, J., preparation of 1:1'-dianthraquinonyl derivatives, A., 881.
- Eckert, F. E. See Wescott, B. B.
- Eckert, P. See I. G. Farbenind. A.-G.
- Eckert, T. S., and France, W. G., effect of gelatin on the size and distribution of macroscopic crystals grown from aqueous solutions, A., 724.
- Eckert, W., and Grasselli Dyestuff Corporation, manufacture of 1:4:5:8-naphthalenetetracarboxylic acid, (P.), B., 173*.
- Eckfeldt, G. A., and Koser, S. A., germicidal effect of staining solutions, A., 1220.
- Eckman, J. R., determination of sulphur trioxide in the presence of sulphur dioxide, together with some analyses of commercial liquid sulphur dioxide, B., 876.
- Eckmann, M. See Hölzl, F.
- Eckstein, H. C., cholesterol content of hair, wool, and feathers, A., 691.
- Eckstein, H. C. See also Christman, A. A.
- Eclipse Textile Devices, Inc., and Ness, H. E. van, method and apparatus for [spot] dyeing [yarn], (P.), B., 776.
- Eda, G., effect of partial pancreatectomy on the sugar excretion threshold, A., 896.
- effect of insulin on the sugar excretion threshold and its after-effect on sugar assimilation, A., 903.
- Edbrook, F. G., lacquer for shoe heels, etc., (P.), B., 85.
- Eddy, C. E., and Turner, A. H., L-emission spectra of lead and bismuth, A., 491.
- Eddy, H. C., Hanson, G. B., and Petroleum Rectifying Co. of California, dehydrating petroleum emulsions, (P.), B., 35.
- Edee, R. H. See Palmer, C. S.
- Edel, W. L. See Silica Gel Corporation.
- Eden, C. G. See General Electric Co., Ltd.
- Eden, G. E., [cover for] hydro-extractors for laundry and like purposes, (P.), B., 512.
- Éderer, S., adrenaline in water and salt metabolism, A., 795.
- Edgar, G., measurement of knock characteristics of gasoline in terms of a standard fuel, B., 514.
- Edgerton, H. A. See Toy, F. C.
- Edgewater Steel Co. See Caughey, E. G.
- Edison Electric Appliance Co., Inc. See Richardson, E. H.
- Edison Swan Electric Co., Ltd., Soundy, L. H., and Price, T. IV., thermionic valve, (P.), B., 850.
- Edison Swan Electric Co., Ltd., and Webster, G. E., [plate pillars for] electric storage batteries or electric accumulators, (P.), B., 226.
- Edison Swan Electric Co., Ltd. See also Carpenter, J. W.
- Edlbacher, S., and Simons, E., arginase. IV. Optimum pH and purification of arginase by adsorption, A., 792.
- Edmondson, W., and Egerton, A. C. G., vapour pressures and m. p. of sodium and potassium, A., 103.
- chemical and other thermal constants of sodium and potassium, A., 103.
- Edser, E., Taplin, B., and Metal Production, Ltd., heat treatment and concentration of ores, (P.), B., 224.
- Edser, E. See also Broadbridge, W., and Fowler, S.
- Edwards, C. A., and Jones, J. C., influence of annealing temperature on the properties of mild steel sheets, B., 446.
- Edwards, C. A., and Kuwada, K., influence of cold-rolling and subsequent annealing on the hardness of mild steel, B., 816.
- Edwards, G. R., and Rogerson, H., *Fabiana imbricata*, A., 995.
- Edwards, G. W., and Durant, H. T., treatment of oxidised ores or other oxidised compounds of copper and zinc, (P.), B., 81*.
- Edwards, H. W., total reflexion of X-rays and the index of refraction of certain metals, A., 921.
- Edwards, J. D., aluminium from Oersted to Arvida, B., 302.
- Edwards, J. D. See also Tosterud, M.
- Edwards, M. J., and Williams, J. M., malonic anhydride (carbon suboxide), C_3O_2 , A., 506.

- Edwards, *R. L.*, magnetic properties of evaporated nickel and iron films, A., 299.
- Edwards, *W. L.* See Ernst, *F. A.*
- Edwin, *E.*, production of hydrogen, (P.), B., 409.
- Edwin, *E.*, and Aktieselskapet Norsk Staal Elektrisk-Gas-Reduktion, reduction process using circulating gases, (P.), B., 848.
- Egriwe, *E.*, detection of nitrite, nitrate, and sulphite ions, A., 125.
- delicate colour test for antimony and tungsten, A., 437.
- Effinger, *K.* See Weinland, *R.*
- Effront, *J.*, synthesis of proteins by *Saccharomyces*, A., 794.
- power of absorption of vegetable tissues, B., 153.
- Efremov, *N. N.*, nitroaniline styphnates, A., 1179.
- Efremov, *N. N.*, and Tichomirova, *M. A.*, equilibria in binary systems containing trinitro-*m*-cresol, A., 1182.
- Ege, *R.*, dispersed phase of the blood-corpuscles, A., 892.
- Egeberg, *F. P.*, and MacIntosh, *J. C.*, apparatus for concentrating ores, etc. by flotation, (P.), B., 705*.
- Egerton, *A.*, and Gates, *S. F.*, detonation of gaseous mixtures of acetylene and of pentono, A., 318.
- detonation in gaseous mixtures at high initial pressures and temperatures, A., 318.
- explosions in gaseous mixtures of acetylene, of hydrogen, and of pentano, A., 1146.
- action of "antiknocks," B., 402, 738.
- effect of metallic vapours on the ignition of substances, B., 737.
- significance of igniting temperatures, B., 738.
- effect of certain organic compounds on the igniting and "knocking" characteristics of petrol, B., 738.
- Egerton, *A. C. G.* See Edmonson, *W.*
- Egg Patents, Ltd. See Bellamy, *A. J.*
- Egge, *W. S.* See Long, *J. S.*
- Egger, *F.*, comparative chemical results of slow and rapid filtration [of public water supplies], B., 270.
- Egger, *F.*, and Maier, *F.*, determination of faecal impurities in water by the detection of *B. coli*, B., 622.
- Eggert, *H.*, passivity, A., 423.
- Eggert, *J.* [with Wachholtz, *F.*, and Schmidt, *R.*], photochemical reaction of bromine with fumaric and malic esters, A., 739.
- Eggert, *J.*, and Noddack, *W.*, decomposition of silver bromide per quantum of X-radiation, A., 841, 1154.
- Eggert, *J.*, and Reitsstötter, *J.*, latent image, B., 620.
- Eggert, *W.* See Jabłoński, *L.*
- Eggiman, *A.*, and Perea, *A.*, manufacture of a translucent article, (P.), B., 854*.
- Eggleton, *G. P.* See Eggleton, *P.*
- Eggleton, *M. G.* See Eggleton, *P.*
- Eggleton, *P.*, and Eggleton, *G. P.*, inorganic phosphate and a labile form of organic phosphate in the gastrocnemius of the frog, A., 271.
- physiological significance of phosphagen, A., 990.
- Eggleton, *P.*, and Eggleton, *M. G.*, significance of phosphorus in muscular contraction, A., 274.
- Egloff, *G.*, Alther, *J. C.*, and Universal Oil Products Co., apparatus for cracking hydrocarbons, (P.), B., 961.
- Egloff, *G.*, Benner, *H. P.*, and Universal Oil Products Co., refining of hydrocarbon oils, (P.), B., 163.
- cracking hydrocarbon oils, (P.), B., 245.
- process and apparatus for cracking petroleum oil, (P.), B., 291.
- apparatus for treating [cracking] hydrocarbons, (P.), B., 323.
- Egloff, *G.*, Howard, *W. R.*, and Universal Oil Products Co., treating oils, (P.), B., 436.
- Egloff, *G.*, and Universal Oil Products Co., treating oil shale, (P.), B., 673.
- process and apparatus for cracking oil, (P.), B., 806.
- process for cracking oil, (P.), B., 806.
- Egloff, *G.* See also Morrell, *J. C.*
- Egorov, *M.*, circulation of phosphorus in nature, A., 586.
- Eguchi, *T.*, basic nitrogen compounds from Fushun shale tar, B., 696.
- Ehlers, *W.*, and General Electric Co., making magnetic cores, (P.), B., 339.
- Ehling, *L.* See Simon, *A.*
- Ehrenberg, *R.*, tryptic digestion. IV., A., 698.
- Ehrenfest, *P.*, relation between the reciprocal impenetrability of matter and Pauli's exclusion principle, A., 183, 495.
- Ehrentfried, *A.*, chlorine consumption of wood pulps, B., 294.
- Ehrenhaft, *F.*, existence of sub-electrons, A., 394.
- Ehrenreich, *A.*, manufacture of glues, gelatins, and the like from plagiostomaceous materials, (P.), B., 373.
- tanning of shark skins, (P.), B., 949.
- Ehrenstein, *M.* See Karrer, *P.*
- Ehrental, *B. P. von*, and Scholz, *K.*, means for extracting fibres from the stalks of flax, hemp, and like plants, (P.), B., 552.
- Ehrhardt, *F.*, filling element, (P.), B., 303.
- Ehrhardt, *J.*, [fine] grinding mill, (P.), B., 95.
- Ehrich, *E.*, relationship between the yield of extract from barley and from malt, B., 264.
- Ehrig, *B.*, & Co., production of cemented acid- and alkali-resisting vessels, (P.), B., 524.
- Ehrismann, *O.*, determination of atropine in pills, B., 891.
- Ehrlich, *F.*, symmetric and asymmetric cleavage of racemic tyrosine in yeast fermentation and the influence of vitamin-like substances on it, A., 700.
- Ehrlich, *J.*, oil solvent process, (P.), B., 170.
- Eibner, *A.*, new cadmium pigments, B., 971.
- Eibner, *A.*, and Koch, *E.*, synthetic resins containing nitrogen, B., 119.
- Eibner, *A.*, and Munzert, *H.*, "oxyns." IV. The autoxidation process, B., 417.
- "oxyns." V. Oil films from the colloidal point of view, B., 707.
- Eichenberg, *G.*, and Oertel, *W.*, influence of the [heat and mechanical] treatment of transformer iron on the wattage losses, B., 335.
- Eichengrün, *A.*, preventing easily-inflammable articles from inflaming, and extinguishing fire, (P.), B., 104*.
- production of thin foils and film-like bands from soluble cellulose derivatives, (P.), B., 165.
- production of solutions for lacquering, impregnating, coating, doping, etc. of fabrics, fibrous and solid materials, etc., (P.), B., 305.
- dissolution or extraction of fats, oils, or allied materials, (P.), B., 495.
- production of artificial silk, filaments, threads, bands, ribbons, etc., (P.), B., 579.
- Eichhorn, *F.* See Kraut, *H.*
- Eichinger, *A.*, occurrence of red earths and laterites, B., 21.
- Eichler, *A.* See Fresenius, *L.*, and Lange, *E.*
- Eichwede, *H.* See I. G. Farbenind. A.-G.
- Eickel, *W.* See Zeche *M. Stinnes*.
- Eicker, *C.* See Tröger, *J.*
- Eiender, *W.*, and Oertel, *W.*, influence of oxygen on the properties of steel, B., 967.
- Eilers, *H.*, application of Kolthoff's reaction for magnesium in plant microchemistry, A., 1046.
- Einecke, *E.* See Fischbeck, *K.*
- Einert, *H. E.* See Wescott, *B. B.*
- Einig, *J.* See Deutsche Gasglühlicht-Auer-Ges.m.b.H.
- Eisenbrand, *J.*, detection and determination of nitrite and nitrate, A., 638.
- Eisenbrand, *J.* See also Halban, *H. von*.
- Eisenhauer, *C. P.*, and Duro Co., filter [for water supply], (P.), B., 206*.
- automatic [base exchange] water softener, (P.), B., 462.
- Eisenhauer, *F. S.* See Rhodes, *F. H.*
- Eisenman, *A. J.*, effect of potassium oxalate on electrolytes of blood and plasma, A., 370.
- anaerobic defibrination of blood, A., 370.
- gasometric determination of pH of blood, A., 370.
- Eisenman, *A. J.* See also Peters, *J. P.*, and Wakeman, *A. M.*
- Eisenschitz, *R.*, and Bailey Meter Co., gas analysis apparatus, (P.), B., 960.
- Eisen- & Stahlwerk Hoesch A.-G., and Wolf, *W.*, testing blast-furnace coke, (P.), B., 835.
- Eisenstecken, *F.* See Schenck, *R.*
- Eisenwerk Akt.-Ges. Rothau-Neudeck, treatment of metal sheet or wire in a gas current, (P.), B., 195.
- Eisleb, *O.* See I. G. Farbenind. A.-G.
- Eisler, *A.* See Barrenscheen, *H. K.*
- Eisold, *J.* See Steinkopf, *W.*
- Eissner, *W.* See Jänecke, *E.*
- Eistert, *B.* See Arndt, *F.*
- Ekenstam, *A.* See Schwalbe, *C. G.*
- Ekhard, *W.*, neutral litmus paper as indicator, A., 434.
- increasing the protein content of potato waste, B., 397.
- chemical composition of manioc root, B., 397.
- Ekhard, *W.* See also Parow, *E.*
- Ekkert, *L.*, colour reactions of santonin, A., 972.
- colour reactions of phenols and aldehydes, A., 984.
- colour reaction of saccharin, B., 92.

- Ekkert, *L.*, colour reactions of the ethereal oils and of some of their constituents, B., 859.
- Ekström, *P. G.*, process of road treatment, (P.), B., 110, 334*.
- Ekwall, *P.*, determination of lead by oxidation with persulphate, A., 223.
- Elam, *C. F.*, banded structure in aluminium and copper, A., 917. tensile tests on alloy crystals. I. Solid solution alloys of aluminium and zinc. II. Solid solution alloys of copper and zinc. III. Conclusions, B., 558.
- Elbert, *W.* See Haselhoff, *E.*
- Elchner, *C.* See Auger, *V.*
- Elder, *A. L.* See Greenfield, *R. E.*
- Elder, *L. W., jun.*, and Rideal, *E. K.*, thermal decomposition of hydrogen peroxide vapour, A., 1035.
- Eldredge, *E. E.*, method of pasteurising cheese, (P.), B., 123.
- Eldredge, *E. E.*, and Fabst Corporation, manufacture of processed cheese, (P.), B., 795.
- Eldridge, *J. A.*, and Olson, *H. F.*, polarisation by electron impact, A., 84.
- Electric Furnace Co. See Cope, *F. T.*
- Electro Co. See Bassett, *H. P.*
- Electroflo Meters Co., Ltd. See Bursill, *A.*
- Electro Metallurgical Co. See Becket, *F. M.*, Corson, *M. G.*, Feild, *A. L.*, Hambuechen, *C.*, and Jacobs, *C. B.*
- Electro-Osmose Latine, apparatus for electro-osmosis of liquids containing dissolved or suspended materials, (P.), B., 928.
- Electrolux, Ltd., and Platen-Munters Refrigerating System Akt., absorption refrigerating apparatus, (P.), B., 690, 929.
- Electrolux Servel Corporation. See Platen, *B. C. von.*
- Electrolytic Zinc Co. of Australasia, Ltd., treatment of zinc-bearing ores for the recovery of zinc by electrolytic deposition, (P.), B., 528.
- Electrolytic Zinc Co. of Australasia, Ltd. See also Gepp, *H. W.*
- Electron Relay Co. See Laise, *C. A.*
- Elektrizitätswerk Lonza, production of ammonium sulphate, (P.), B., 188.
- Elektrizitätswerk Lonza, and Lüscher, *E.*, fertilisers, (P.), B., 311. production of concentrated nitric acid free from oxides of nitrogen, (P.), B., 937.
- Elektrizitätswerk Lonza. See also Lichtenhahn, *T.*, and Lüscher, *E.*
- Elghozy, *F.* See Locquin, *R.*
- Elgin, *J. C.* See Benton, *A. F.*
- Eliades, *A. P.*, method of obtaining scalp-treating oils, (P.), B., 18.
- Elias, *H.*, and Gudemann, *J.*, action of insulin on the permeability of the human kidney, A., 282.
- Elias, *O. A.*, manufacture of biscuits, cakes, and similar food products, (P.), B., 314.
- Elicabe, *A.* See Gaus, *R.*
- Elicabe, *F. M.*, modification of the Folin and Wu method for the determination of dextrose in blood, A., 936.
- Eliseev, *A.* See Maksimenko, *M. S.*
- Elkin, *S. E.*, and Haynes, *P. E.*, manufacture of carbon dioxide, (P.), B., 842.
- Ellenberger, *E. P.* See Hoyt, *L. F.*
- Ellerbroek, *J.*, influence of temperature on gaseous films adsorbed on mercury and on the optical constants of mercury, A., 301.
- Ellett, *A.* See MacNair, *W. A.*
- Elley, *H. W.*, and Du Pont de Nemours & Co., *E. I.*, production of vulcanised rubber and accelerators therefor, (P.), B., 120. concentration of ores by flotation, (P.), B., 168. preparation of a rubber composition, (P.), B., 534.
- Elley, *H. W.*, Powers, *D. H.*, and Du Pont de Nemours & Co., *E. I.*, manufacture of a vulcanisation accelerator, (P.), B., 708. production of vulcanised rubber and accelerators therefor, (P.), B., 917.
- Ellinger, *P.*, relationship between antirachitic activity and the dielectric constant of irradiated cholesterol solutions, A., 796.
- Ellinghaus, *J.*, calorimetric researches on nucleic acids, their fission products and their compound with protamine, A., 629.
- Ellinghaus, *J.* See also Steudel, *H.*
- Elliott, *A.*, oxidation of ferrous sulphate in solution, (P.), B., 748.
- Elliott, *A.* See also Taylor, *W.*
- Elliott, *G. A.*, activation of hydrogen in the electric discharge, A., 187, 634*.
- Elliott, *G. A.*, Joshi, *S. S.*, and Lunt, *R. W.*, velocity of chemical reaction in the silent electric discharge, A., 212, 630*.
- Ellis, *C.*, manufacture of sulphur-phenol resin, (P.), B., 788.
- Ellis, *C.*, and Ellis-Foster Co., paper product, (P.), B., 71. process of paper making, (P.), B., 71.
- Ellis, *C.*, and Ellis-Foster Co., treating paper pulp, (P.), B., 71.
- Ellis, *C.*, Weber, *H. M.*, and Ellis-Foster Co., recovery of values [camphor] from [photographic] nitrocellulose material, (P.), B., 829.
- Ellis, *C.* See also Meigs, *J. V.*
- Ellis, *C. D.*, and Wooster, *W. A.*, photographic action of β -rays, A., 324. relative intensities of the groups in the magnetic β -ray spectra of radium-B and radium-C, A., 393. continuous spectrum of β -rays, A., 494. absolute intensities of the γ -rays of radium-B and -C, A., 606.
- Ellis, *E. W.*, silver-lead ore concentration, B., 301.
- Ellis, *G. H.*, and American Cellulose & Chemical Manufacturing Co., Ltd., dyeing or colouring of products made with cellulose acetate, (P.), B., 249*.
- dyeing materials comprising cellulose acetate and products produced, (P.), B., 249*.
- Ellis, *G. H.*, and Celanese Corporation of America, treatment [dyeing] of cellulose derivatives, (P.), B., 812*.
- Ellis, *G. H.* See also British Celanese Ltd.
- Ellis, *G. W.*, determination of carbonyl in aldehydes and ketones, A., 583.
- Ellis, *J. M.* See Burn, *J. H.*
- Ellis, *J. V.*, and United Steel Companies, Ltd., treatment of steel ingots, (P.), B., 416.
- Ellis, *J. W.*, infra-red oscillation spectrum of water molecules and its variation with state, A., 291. infra-red absorption by the N-H linking. I. Aniline and alkylaniline, A., 291. new infra-red absorption bands of methane, A., 608. series due to halogens in infra-red absorption spectra of organic compounds, A., 1006.
- Ellis, *M. M.*, and Newton, *E. B.*, changes in the physiological action of insulin induced by exposure to ultra-violet light, A., 78.
- Ellis, *O. C. de C.*, study of flame movement, B., 354.
- Ellis, *O. C. de C.*, and Wheeler, *R. V.*, movement of flames in closed vessels; correlation with development of pressure, A., 211. movement of flame in closed vessels: after-burning, A., 317.
- Ellis, *O. J.* See Smith, *R. S.*
- Ellis, *O. W.*, influence of pouring temperature and mould temperature on the properties of a lead-base anti-friction alloy, B., 112. effect of constitution on the malleability of steel at high temperatures, B., 485.
- Ellis, *S. J.* See Burstall, *F. W.*
- Ellis-Foster Co. See Ellis, *C.*, and Maze, *A. E.*
- Ellison, *F.* See British Cotton & Wool Dyers' Association.
- Ellison, *T. E.*, substituted phenyl styryl ketones. Condensation of cinnamic acid with resorcinol and pyrogallol, A., 880.
- Ellsworth, *H. V.*, potash-bearing horizon of the Malagash salt deposit, Nova Scotia, A., 129.
- Ellsworth, *R. McL.* See Michaelis, *L.*
- Ellsworth, *V. M.*, and Hopfield, *J. J.*, oxygen bands in the ultra-violet, A., 184.
- Elman, *R.*, and McCaughan, *J. M.*, determination of blood-amylase with the viscosimeter, A., 986.
- Elmore, *F. E.*, separation of materials by [vacuum] flotation, (P.), B., 800.
- Elmore, *G. H.*, and Comley, *R. C.*, removing free moisture from substances, (P.), B., 159.
- El Nouty, *A. H.* See Cruess, *W. V.*
- Elöd, *E.*, and Banholzer, *W.*, catalytic decomposition of ammonia, A., 118.
- Elöd, *E.*, and Kolbach, *F.*, tin salts of organic acids, A., 958.
- Elöd, *E.*, and Nedelmann, *H.*, catalytic synthesis of hydrocyanic acid from nitric oxide and hydrocarbons, A., 838.
- Elöd, *E.*, Teichmann, *L.*, and Pieper, *E.*, mordanting and dyeing. V. [Mechanism of the weighting of silk], B., 407.
- Elöd, *E.*, and Tremmel, *K.*, ternary system formic acid-sodium formate-water. Acid sodium salts of formic acid, A., 940.
- Elöd, *E.* See also Askenasy, *P.*, Bredig, *G.*, and Koepf & Co., *R.*
- Elsdon, *G. D.*, and Smith, *P.*, examination of mixtures of coconut oil and palm-kernel oil; determination of butter fat in margarine, B., 227. short method for the determination of butter fat, B., 608.
- Elsdon, *G. D.*, and Stubbs, *J. R.*, immersion refractometer and its value in milk analysis, B., 375.
- Elsner, *G.* See Sauerwald, *F.*

- Elvehjem, C. A., Herrin, R. C., and Hart, E. B., iron in nutrition. III. Effects of diet on iron content of milk, A., 272.
- Elvehjem, C. A., and Peterson, W. H., iron content of animal tissues, A., 1104.
- Elvehjem, C. A. See also Hart, E. B.
- Elworthy, R. T., helium in Canada, B., 554.
- Elzas, M., and Lansberg, L. M., pyrimidone in testing for blood, A., 167.
- Embsen, G., Deuticke, H. J., Lehnartz, E., and Perger, H., differences in chemical and biological behaviour of surviving muscle of different kinds of fish. I. Sea-fish, A., 274.
- Embsen, G., and Jost, H., chemical and colloid-chemical changes in muscle during fatigue, A., 588.
- Embsen, G., Lehnartz, E., and Hentschel, H., time-relationships of the formation of lactic acid during muscular contraction, A., 589.
- Embsen, G., and Zimmermann, M., lactacidogen, A., 749.
- adenylic acid and muscle function. I. Presence of adenylic acid in skeletal muscle, A., 787.
- Embree, H. C. See McNally, W. D.
- Emel us, H. J., spectra of phosphorescent flames of carbon disulphide and ether, A., 7.
- glow of arsenic, A., 497.
- Emel us, H. J., and Purcell, R. H., origin of the ultra-violet spectrum of the glow of phosphorus, A., 497.
- Emel us, K. G., investigation of gas discharges by means of an exploring electrode, A., 293.
- Emel us, K. G., and Harris, N. L., Geissler discharge in argon, A., 490.
- Emerson, A., jun., manufacture of vitreous containers for electric lamps, thermionic valves, etc., (P.), B., 117*.
- Emerson, F. W. See British Dyestuffs Corporation.
- Emerson, O. H., and Buchanan, J. W., effect of ethyl cyanide and ethyl carbamate on biological oxidations, A., 1110.
- Emery, H. W., and Archer Rubber Co., production of surface-finished rubber goods, (P.), B., 610.
- Emery, W., refractories for the pottery industry, B., 44.
- Emery, W. O., chlorination of antipyrine. I. Chloroantipyrine, A., 1203.
- Emlenton Refining Co. See Tarbox, L. A.
- Emmel, K., and Thyssen & Co., Akt.-Ges., production of iron castings with a low carbon content, (P.), B., 79.
- Emmer, H. J. See I. G. Farbenind. A.-G.
- Emmert, B., and Brandl, F., internally complex salts of 2:2'-pyridylpyrrole and picolinamide, A., 1204.
- Emmert, B., Diefenbach, E., and Eck, R., *p*-hydroxy- and *p*-amino-phenyl-lutidine, A., 1200.
- Emmett, P. H., rate of reduction of metallic oxides by gases, A., 526.
- Emmett, W. G., use of titanous chloride in the volumetric determination of copper and iron, A., 1047.
- Empire Gasoline Co. See Born, S.
- Empson, A. W., centrifugal separators, (P.), B., 32, 64.
- centrifugal filtering apparatus, (P.), B., 640.
- Empson Centrifugals, Ltd., and Alexander, S., centrifugal purifying and dehydrating apparatus, (P.), B., 639.
- Emslander, F., apparatus for the electrometric determination of hydrogen-ion concentration, A., 637, 743.
- Endell, K., and Harr, R., influence of oxide admixtures on the properties of silica bricks, B., 108.
- Enderlein, H. See Vorl nder, D.
- Enderlen, E., Thannhauser, S. J., and Jenke, M., effect of extirpation of the liver on the cholesterol metabolism of dogs; appearance of a yellow pigment in the blood, A., 274.
- Enderlin Gebr der Druckfabr. & Mech. Weberei Akt.-Ges. See Lanterbach, A.
- Endo, H., magnetic susceptibility of some binary alloys at high temperatures, and their equilibrium diagrams, A., 720.
- Endo, H. See also Honda, K.
- Endo, K., activity of phenol in aqueous salt solutions, A., 729.
- formation of a complex ion in aqueous solutions of silver nitrate and phenol, A., 827.
- Endo, T. See Uemura, T.
- Endres, G., oxygen consumption of human blood, A., 984.
- Endres, H. A., Caldwell, L., and Celite Co., siliceous composition of matter, (P.), B., 221.
- Endres, H. A., and Goodyear Tire & Rubber Co., liner for rubberised material and method of treating same, (P.), B., 52.
- Enell, O. E., and Chadeloid Chemical Co., treatment of wax; paint remover containing wax, (P.), B., 915.
- Enevoldsen, V., changes in hydrogen-ion concentration of natural waters produced probably by the growth of bacteria, A., 379.
- Engel, E. W. See Hnrd, C. D.
- Engel, L., and Pauli, W., determination of the velocity of transference of colloidal ions in the electric field, A., 511.
- Engel, P. N., manufacture of base-exchange silicates, (P.), B., 842.
- Engelhard, F. J. W. See Aten, A. H. W.
- Engelhardt, A. See I. G. Farbenind. A.-G.
- Engelhardt, F. See Fricke, R.
- Engelhardt, H. See Deutsche Gasgl hlicht-Aner-Ges.m.b.H., and Siemens & Halske, Akt.-Ges.
- Engelhardt, K. See Siemens & Halske, Akt.-Ges.
- Engelhardt, W., colloidal zinc, A., 410.
- Engelhardt, W. See also Magaram, M.
- Engelhardt, W. A., intermediate purine metabolism. I. Enzymic formation of uric acid precursors in the blood, A., 375.
- Engelmann, M., Albright, A. R., and Du Pont de Nemours & Co., E. I., [seed] disinfecting composition; non-hygroscopic seed disinfectants, (P.), B., 374.
- Engelmann, M., and Du Pont de Nemours & Co., E. I., production of [seed] disinfectants, (P.), B., 374.
- Engels, O., determination of phosphoric acid content or phosphoric acid requirement of soils by the methods of Neubauer and of Lemmermann, B., 120.
- Engelstad, A. See Cross, C. F.
- England, B., compound of pyrocatechol and arsinoacetic acid, A., 65.
- Engle, E. W., gaseous reduction of tungsten and molybdenum oxides, B., 680.
- Englehorn, A. J., biological activities in fertiliser composts, B., 374.
- Engler, A., titration of tartaric acid after drying at 100°, B., 315.
- English, S., Firth, E. M., and Turner, W. E. S., function of arsenic in potash-lead oxide-silica glasses, B., 410.
- English, S., Turner, W. E. S., and Winks, F., properties of soda-lead oxide-silica glasses, B., 877.
- English, S. See also Dimpleby, V.
- English, W. E., and Hannan, J. R., stills and the like, (P.), B., 545.
- Englund, B., construction of neutralisation curves, A., 121.
- Engset, T., orbits and radiations of hydrogen electrons, A., 181, 601, 801.
- Enklaar, C. J., reaction for eugenol, B., 267.
- constitution of ordinary hydrocyanic acid, A., 1176.
- Enna, E. F. H., method and apparatus for uniting crude rubber to leather or other supporting surfaces, (P.), B., 229.
- Enna, F. G. A., patent leather. II. Employment of some iron compounds as driers of leather japans, B., 20.
- Ensleme, and Ensleme, (Mme.), chemistry of cancerous tissue, A., 789.
- Ensleme, (Mme.). See Ensleme.
- Ephraim, F., and Bloch, R., ammoniates of compounds of the rare earths. I. Contraction during the formation of compounds, A., 121.
- Epple, W. F. See Spitzer, G.
- Eppley, M., relation between unit electrolytic conductivity and Faraday's law, A., 831.
- Epstein, A. K., preparation of egg products [for use as emulsifiers], (P.), B., 955*.
- Epstein, A. K., and Harris, B. R., detection of minute amounts of naphthalene in flour, B., 395.
- Epstein, C. See Fodor, A.
- Epstein, E., and Rubinstein, H., theory of Lang's gold-sol reaction on the cerebrospinal fluid in syphilis and metalues of the central nervous system, A., 274.
- Epstein, H. See Sp th, E.
- Epstein, P. S., new quantum theory and the Zeeman effect, A., 83.
- second order Stark effect in hydrogen, A., 492.
- dielectric constant of atomic hydrogen in undulatory mechanics, A., 812.
- Epstein, S., and Rawdon, H. S., normal and abnormal steels, B., 967.
- Erben, F. X., and Philippi, E., chloroarsinosoquinine. II., A., 265.
- Erdahl, B. F., production of algin compounds, (P.), B., 734.
- Erd ly, A., behaviour of lignite producer tar and lignite low-temperature tar when heated under pressure, B., 68.
- Erd ly, A. See also Varga, G.
- Erdmann, K. See Austro-American Magnesite Co.

- Erhard, C., carbonising plant and generator for the production of low-temperature tar, (P.), B., 549.
- Erickson, J. L. E., substituted amines; preparation of substituted acetanilides and the corresponding primary amines, A., 44.
- Erle Glass Co., manufacture of sheet glass, (P.), B., 76*.
- Erikson, H. A., effect of the medium on gas ion mobility, A., 1002.
- Erlenbach, E. See Braunkohlen-Produkte A.-G.
- Erlenbach, M. See Wieland, Heinrich.
- Erlenmeyer, H., mechanism of the thermal decomposition of benzoyl peroxide, A., 1185.
- Ermen, W. F. A., and Jenkins, S. H., action of sodium hydroxide on cotton cellulose, B., 103.
- Ernst, F. A., compressed gas handling technique, B., 319.
- Ernst, F. A., and Edwards, W. L., sulphate of ammonia plant, B., 651.
- Ernst, H. W., excitation of phosphorescence by means of slow cathode rays, A., 609.
- Ernst, O. See I. G. Farbenind. A.-G.
- Ernst, W., and Luh, E. (Mittelbadische Papier-Manuf. Ernst & Luh), paper bags for containing cement, lime, etc., (P.), B., 378.
- Ernst, W. See also Auwers, K. von.
- Errera, J., electrical polarisation of some carbon compounds; geometrical and position isomerism, A., 94.
- polarisation of a medium and its molecular structure; benzene and cyclohexane, A., 189.
- specific inductive capacity of heterogeneous mixtures, A., 314.
- polarisation of a medium and molecular structure; electric moments of dihalogen derivatives of benzene, A., 501*.
- Erichelli, E., influence of potassium hydrogen tartrate and of tartaric and malic acids on the precipitation of protein substances, in relation to the defecation and clarification of musts, B., 501.
- Erslev, K., preparation of fats of a plastic and pliable consistency, (P.), B., 531.
- Erste Böhmisches Kunstseidefabrik Akt.-Ges., manufacture of artificial textile threads, (P.), B., 774.
- Erste Böhmisches Kunstseidefabrik Akt.-Ges. See also Bass, H.
- Erste Oesterreichische Glanzstoff-Fabr. Akt.-Ges., spinning bath for viscose filaments; spinning process for fine filaments; production of very fine viscose silk filaments, (P.), B., 579.
- Esch, W., tables of comparison for steam pressures and temperatures in vulcanisation, B., 635.
- Eschenbach, W. See Dieterle, H.
- Esehenbrenner, H., detection [and determination] of very small quantities of iodine [in urine and organs], A., 895.
- Escourrou, R., analysis of synthetic tannins, B., 20.
- recovery of condensed water in cellulose factories, B., 276.
- Escourrou, R., and Carpentier, P., value of p_H determination in the paper industry, B., 699.
- Eskeland, S., intensity changes in the lines of a mercury triplet, A., 179.
- Esling, F. See Wright, H. T.
- Esnault-Pelterie, apparatus for measuring Hertzian hardness, B., 46*.
- Espe, W., mechanism of [electron] emission from oxide [coated] cathodes, A., 603.
- work function for cathodes coated with alkaline-earth oxides, A., 604.
- "Esseff" Chemische Industrie & Handels Akt.-Ges., manufacture of alkaline-earth salts of the carboxylic acids of aromatic sulphonhaloalkali amides, (P.), B., 59.
- Esselen, G. J., jun. See Brown, C. A.
- Esselmann, P. See Faust, O., and Legeler, E.
- Esselstyn, A. J. See Cornwell, R. T. K.
- Essential Oil Sub-Committee, determination of cineole in essential oils. I. Cajuput and eucalyptus oils, B., 506.
- Esser, H., dilatometric and magnetic researches on pure iron and on iron-carbon alloys, B., 278.
- Essex, H., Ward, A. L., and Du Pont de Nemours & Co., E. I., manufacture of polyhydroxy-carbon compounds, (P.), B., 733.
- Essin, O., and Krylow, E., dependence of current efficiency on anodic current density in the preparation of ammonium persulphate, A., 422.
- Essin, O. See also Mokrushin, S., and Stscherbakov, I.
- Estalella, J., chemistry of lightning, A., 183.
- Esters, A. M. See Burge, W. E.
- Estey, R. S. See Sheldon, H. H.
- Estill, H. W., and McCollum, E. V., separation of a substance from oils which inhibits destruction of vitamin-A by ferrous sulphate, A., 1223.
- Estrada, O. P., disappearance of intravenously injected dextrose, formation of glycogen, and arterial and venous sugar content in dogs deprived of suprarenals, A., 381.
- Estrada, O. P., and Deulofeu, V., blood-gases in adrenal insufficiency, A., 71.
- Estrada, O. P., and Neusehlosz, S. M., cellular oxidation in certain tissues of dogs deprived of suprarenals, A., 381.
- Établissements Byla, manufacture of meat juice, (P.), B., 236.
- extraction of cell juices, (P.), B., 500.
- Établissements de Dion-Bouton, Soc. Anon., cementation of copper, nickel, or their alloys, (P.), B., 847.
- Établissements Métallurgiques de la Gironde, light aluminium alloy, (P.), B., 527.
- aluminium alloy, (P.), B., 969.
- Établissements Phillips & Pain, purification of water, (P.), B., 270.
- Établissements Poulenc Frères, preparation of a concentrated, stable solution of 3-acetamido-4-hydroxyphenylarsinic acid by the aid of its ammonium salt, (P.), B., 573.
- Établissements Poulenc Frères, and Fournneau, E., manufacture of new formyl derivative of 2-[hydr]oxy-4-aminophenylarsinic acid [4-formamido-2-hydroxybenzenearsinic acid] and salts thereof, (P.), B., 892.
- Établissements Poulenc Frères. See also Billon, F., Fournneau, E., and Vigreux, C.
- Établissements Reynier, and Szmukler, C., bleaching leather and other products of animal origin, (P.), B., 421.
- Établissements Sablyet, electric furnace [for baking bread, etc.], (P.), B., 858.
- Etrillard, P. See Dienert, F.
- Ettisch, G., and Deutsch, D., cataphoresis technique, A., 310.
- Ettisch, G., Loeb, L. F., and Lange, B., condition of aqueous solutions of sodium urate, A., 724.
- Etzel, G. See King, C. G.
- Eueken, A., and Dietrich, K., Wiedemann-Franz law. II., A., 506.
- Eucken, A., and Donath, E., heats of vaporisation of condensed gases at low pressures, A., 101.
- Eucken, A., and Grützner, H. G., velocity of hydration of carbon dioxide in aqueous solution, A., 424.
- Euler, H. von, and Bernton, A., phosphorus derivatives of sterols, A., 1066.
- Euler, H. von, and Brunius, E., relationship between the total exchange of carbohydrate and its enzymic combination with phosphoric acid, A., 76.
- reactions between sugars and amines. III., A., 135.
- amino-derivatives of the sugars. II., A., 547.
- urcase. I., A., 591.
- nucleosidases. I., A., 901.
- Euler, H. von, and Fink, H., enzymes, co-enzymes, and biocatalysts in coproporphyrin-rich yeasts. II., A., 279.
- [determination of] cytochrome in yeast cells, A., 379.
- Euler, H. von, Fink, H., and Hellström, H., cytochrome in yeast cells. II., A., 993.
- Euler, H. von, and Jansson, B., "acclimatisation" of fresh culture-yeasts to galactose, A., 1114.
- Euler, H. von, and Josephson, K., enzymic cleavage of dipeptides. III. Activation and inhibition of peptidases, A., 175.
- catalase. I. and II., A., 376, 793.
- enzyme specificity, A., 696.
- peptidases. V. Specific action of yeast and intestinal peptidases, A., 794.
- catalytic decomposition of hydrogen peroxide by hæmin, A., 837.
- Euler, H. von, and Myrbäck, K., enzymic transformation of acetaldehyde, A., 484.
- formation and decomposition of hexosediphosphoric acid in alcoholic fermentation, A., 794.
- co-zy-mase. XIV. Purification, A., 993.
- Euler, H. von, Myrbäck, K., and Nilsson, R., co-zy-mase. XII. Molecular weight of co-zy-mase, A., 902.
- Euler, H. von, and Nilsson, R., co-zy-mase and co-reductase, A., 77.
- co-zy-mase. IX. Determination of co-zy-mase in blood, A., 168.
- reductase (hydrogenase) of yeast. V., A., 279.
- specific activators of fermentation enzymes. I., A., 279.
- Euler, H. von, Nilsson, R., and Jansson, B., degradation of glycogen in muscle, A., 479.
- co-zy-mase. X., A., 697.

- Euler, *H. von*, Nilsson, *R.*, and Lövgren, *T.*, enzymes of hexose fission and their range of action. I, A., 697.
- Euler, *H. von*, Nilsson, *R.*, and Runehjelm, *D.*, liver hexose-redoxase [mutase], A., 793.
- biological decomposition and respiratory processes, A., 988.
- Euler, *H. von*, and Runehjelm, *D.*, co-enzyme content of animal tissues, A., 585.
- Euler, *H. von*. See also Fink, *H.*, and Josephson, *K.*
- Evans, *B. S.*, volumetric determination of tin, A., 1162.
- determination of traces of certain impurities in lead, B., 911.
- Evans, *C. T.*, electrical resistance grid, (P.), B., 195.
- manufacture of alloy steel, (P.), B., 783.
- Evans, *C. T.*, and Cutler-Hammer Manufacturing Co., arc shield, (P.), B., 300.
- Evans, *E. A.*, and Wakefield, *C. C.*, & Co., Ltd., [sludge-removal] treatment of oils, (P.), B., 386.
- Evans, *E. B.*, Mabbott, *E. B.*, and Turner, *E. E.*, interaction of alkali sulphites with some halogeno-compounds, and the optical resolution of α -phenylpropanesulphonic acid, A., 644.
- Evans, *E. J.* See Stephens, *D. J.*
- Evans, *E. V.* See South Metropolitan Gas Co.
- Evans, *F. C.*, method and apparatus for treating refuse, (P.), B., 94*.
- Evans, *G. S.* See Vial, *F. K.*
- Evans, *G. W. B.*, and Evans Ore Reduction Co., furnace for treating refractory ores containing precious metals, (P.), B., 753.
- Evans, *H. M.*, and Hoagland, *D. R.*, synthesis of vitamin-E by plants grown in culture solutions, A., 703.
- Evans, *H. P.*, and Hayes, *A.*, graphitising behaviour of iron carbide in pure iron-carbon alloys in the critical range, B., 630.
- Evans, *J. W.*, radioactivity and the heat of the earth, A., 289.
- Evans, *O. B.* See Copley, *I. C.*, and Murdock, *W. J.*
- Evans, *R. E.*, bog hay, B., 951.
- Evans, *R. H.* See James, *C.*
- Evans, *T. A.* See Hamilton, *W. B.*
- Evans, *U. R.*, passivity of metals. I. Isolation of the protective film, A., 619.
- films responsible for oxidation tints on metals, A., 1022.
- ferroxyl indicator in corrosion research with especial reference to the problem of local corrosion, B., 487.
- Evans, *W. L.*, Marling, *P. E.*, and Lower, *S. E.*, relationship during drying between the acid value of linseed oil and the concentration of cobalt acetate, B., 82.
- chemical mechanism of linseed oil drying, B., 450.
- Evans, *W. P.*, drying cylinders, (P.), B., 321.
- microstructure of typical New Zealand lignites, B., 690.
- Evans Ore Reduction Co. See Evans, *G. W. B.*
- Eve, *A. S.*, ionisation potential and radius of the atom, A., 1000.
- Everatt, *R. W.* See British Dyestuffs Corporation, Ltd.
- Everest, *A. B.*, nickel and nickel-chromium in cast iron, B., 703.
- Everest, *A. B.*, Turner, *T. H.*, and Hanson, *D.*, influence of nickel and silicon on an iron-carbon alloy, B., 782.
- Everest, *A. E.* See Leitch & Co., Ltd., *J. W.*
- Everett, *M. R.*, Shoemaker, *H. A.*, and Sheppard, *F.*, total sugar of blood and urine, A., 1102.
- Everetova, *N.* See Gavrilov, *N. I.*
- Everitt, *C. K.*, and Allen, *E.*, & Co., [alloy] steel, (P.), B., 337.
- Evers, *F.*, sedimentation analysis of fillers (for rubber), B., 229.
- Evers, *F.*, and Schmidt, *Rudolf*, artificial ageing of mineral oils, B., 98.
- Evers, *H. H.*, and Strafford, *N.*, analysis of mixtures of the isomeric toluidines, B., 359.
- Evers, *N.*, colour test for ergot alkaloids, B., 570.
- Evers, *N.*, and McLachlan, *T.*, tragacanth and its mucilage. II, B., 667.
- Evershed & Vignoles, Ltd., and Perry, *C. E.*, apparatus for detecting and determining impurities and dissolved matter in water and other fluids, (P.), B., 400.
- Evrénoff, *G. E.*, and Telný, *S. Y.*, electric furnace with revolving arc, B., 338.
- Ewald, *J. W.* See Dushman, *S.*
- Ewald, *K.* See Wöhler, *L.*
- Ewald, *W.*, apparatus for measuring the turbidity of opalescent glass, B., 252.
- Ewbank, (Miss) *E. K.* See Taylor, *T. W. J.*
- Ewell, *H. P.*, electrolytic apparatus, (P.), B., 17.
- Ewest, *H.* See Patent-Treuhand Ges. für Elektrische Glühlampen m.b.H.
- Eweyk, *C. van*. See Bickel, *A.*
- Ewing, *F. J.* See Lucas, *H. J.*
- Ewing, *W. W.*, calcium nitrate. II. Vapour pressure-temperature relations of the binary system calcium nitrate-water, A., 938.
- Ewing, *W. W.*, Krey, *N. L.*, Law, *H.*, and Lang, *E.*, calcium nitrate. I. Temperature-composition relations of the binary system calcium nitrate-water, A., 938.
- Ewins, *A. J.*, Newbery, *G.*, and Stickings, *R. W. E.*, heterocyclic compounds containing arsenic. I. Action of chloroacetamide on 3:4-diaminophenylarsinic acid, A., 577.
- Excelsior Feuerlöschgeräte A.-G., and Minimax A.-G., producing foam for fire extinguishing purposes, (P.), B., 353.
- "Exploration" Bodenuntersuchungs- & Verwertungs-Ges.m.b.H., balance for measuring differences in gravity, (P.), B., 959.
- Exton, *W. G.*, instrument for measuring fluids for turbidity, colour, and other characteristics, (P.), B., 898.
- Eykman, *C.*, experiments with Jansen and Donath's anti-beriberi vitamin, A., 1224.
- Eymers, (Frl.) *J. G.* See Ornstein, *L. S.*
- Eynon, *L.*, and Lane, *J. H.*, determination of sucrose in dried beetroot cossettes, B., 423.
- Ezell, *B. D.*, and Crist, *J. W.*, effect of nutrient conditions on activity of oxidase and catalase, A., 1225.
- E-Z-Way Co. See Boynton, *K. S.*

F.

- Faber, *A.*, abstraction of sulphur dioxide from flame gases by glasses and glazes, B., 723.
- Fabian, *J.*, production of low-temperature tar from bituminous shale, (P.), B., 211.
- Fabián, *L.*, colorimetric determination of sugar, A., 69.
- Fabre, *J. H.*, and Brémond, *E.*, total iron content of wines, B., 500.
- Fabre, *R.*, and Simonnet, *H.*, hemolysis by the photo-sensitising action of haematoporphyrin, A., 477.
- Fabre, *R.* See also Randoir, *L.*
- Fabricord Inc., means for obtaining fibrous materials from the stalks of hemp and like plants, (P.), B., 362.
- [apparatus for] obtaining fibres from flax, hemp, and similar plants, (P.), B., 474.
- Fabriek van Chemische Producten, and Horst, *A. ter*, manufacture of derivatives of cellulose and formic acid, and of dyed or undyed materials therefrom, (P.), B., 103.
- Fabriek van Chemische Producten, and Kraus, *E.*, manufacture of sulphurised derivatives of phenols and naphthols, and their application as mordants, (P.), B., 469.
- manufacture of sulphurised derivatives of naphthols [tanning agents], (P.), B., 497.
- Fabriques de Produits Chimiques de Thann et de Mulhouse. See Blumenfeld, *J.*
- Fabris, *E.*, composition of crystals from mixed solutions, A., 518.
- composition of crystals obtained from solutions containing sodium sulphate and iodides, A., 939.
- Fabry, *R. F. F.*, coke manufacture, (P.), B., 99.
- Fachmann, *W.* See Vorländer, *D.*
- Fackler, *L.*, and Stein-Davies Co., manufacture of an adhesive, (P.), B., 312.
- Färber, *E.*, determination of molybdenum in iron and steel, B., 526.
- Färber, *E.*, and International Sugar & Alcohol Co., Ltd., manufacture of [crystallisable] sugar [from cellulosic materials], (P.), B., 23.
- Fahr, *R.* See Gutbier, *A.*
- Fahrenwald, *F. A.*, recuperative apparatus, (P.) B., 32.
- firearm and alloy for making same, (P.), B., 257*.
- metallurgical furnace, (P.), B., 370.
- furnace, (P.), B., 431.
- Fahrenwald, *F. A.*, and Smith, *H. E.*, apparatus for heating air and/or other gases, (P.), B., 801.
- Failla, *G.*, system for collecting radium emanation, (P.), B., 166.
- Fairbourne, *A.*, and Fawson, *H. R.*, oxidation of nitrophenyl-cyanoacetates, A., 244.
- Fairbourne, *A.*, and Foster, *G. E.*, partial esterification of polyhydric alcohols. IV. Oxidation of allyl esters to α -monoglycerides. V. α -Structure of alleged " β "-monoglycerides, A., 131.
- Fairbourne, *A.*, and Woodley, *J. W.*, *p*-dimethylaminobenzylidenepentaerythritol, A., 152.
- Fairbrother, *F.*, and Varley, *H.*, electro-endosmosis of aqueous solutions through a diaphragm of sintered glass powder, A., 826.

- Fairbrother, *J. A. V.* See Crowther, *J. A.*
- Fairbrother, *T. H.*, Renshaw, *A.*, and British Dyestuffs Corporation, Ltd., mildew proofing of fibrous material, (P.), B., 248*.
- Fairbrother, *T. H.* See also British Dyestuffs Corporation, Ltd.
- Fairchild, *C. O.*, and Peters, *M. F.*, characteristics of pyrometric cones, B., 332.
- Fairhall, *L. T.*, colorimetric determination of minute amounts of nickel, A., 127.
- Fairlie, *A. M.*, recovery of oxides of nitrogen in sulphuric acid manufacture, (P.), B., 778*.
- Fairlie, *A. M.* See also Jones, *E. M.*
- Fairweather, *D. A.*, and Walker, *O. J.*, mechanism of Kolbe's electrosynthesis, A., 119.
- Faitelowitz, *A.*, bacterial decomposition of tobacco as leading to the formation of bases in presence of water, A., 385.
- production of preserves of vegetable matters of unlimited durability, (P.), B., 923*.
- Faithfull, *S. E.*, process for making lactic acid and lactates, (P.), B., 264*.
- Faivre, *H.*, extraction of lead and zinc from ores, (P.), B., 658.
- Fajans, *K.*, deformation of electronic orbits in crystalline salts, A., 181.
- refractometric evidence for the existence of undissociated molecules and complex ions in solutions of strong electrolytes, A., 1023.
- Fajans, *K.*, and Steiner, *W.*, spectral sensitisation of silver bromide and silver chloride by adsorbed ions, A., 529.
- Fajermane, *G.* See Muchin, *G. E.*
- Falcicola, *O.*, new reagent for cobalt, A., 333.
- test for molybdenum, A., 640.
- reaction of tellurium [with thiocarbamide], A., 951.
- detection [and determination] of selenium, A., 952.
- Falck, *R.*, alcohol soaps, B., 608.
- Falck, *R.*, and Haag, *W.*, degradation of the cellulose and lignin of wood, two distinct processes of decomposition by mycelium present in wood, B., 213.
- Falcke, *V.*, the equilibrium $C + CO_2 \rightleftharpoons 2CO$; thermodynamics of the blast-furnace process, B., 191.
- Falco, *F.*, manufacture of barium salts, especially the carbonate, free from sulphur, (P.), B., 522.
- manufacture of pure barium carbonate, (P.), B., 778*.
- Falcon-Lesses, *M.*, glycolysis in normal and in leucæmic blood, A., 587.
- Faldini, *M.* See Levi, *G. R.*
- Falk, *K. G.*, and Noyes, *H. M.*, enzyme action. XXXIX. Lipase actions of extracts of the whole mouse at different ages, A., 277.
- Falk, *K. G.*, Noyes, *H. M.*, and Lorberblatt, *I.*, enzyme action. XLV. Lipase action of the whole trout at different ages, A., 901.
- Falk, *K. G.* See also Noyes, *H. M.*
- Falkenhause, *M. von*, proteolytic enzymes in blood-serum. VIII. Possibility of fundamental unity of blood enzymes, A., 787.
- Falkenthal, *E.*, process and apparatus for mixing gases, (P.), B., 832.
- Falkowsky, *J.* See Zellner, *J.*
- Fall, *P. H.*, detergent action of soaps, B., 727.
- Fallböhmer, *F.* See Bähr, *H.*
- Fallon, *J.* See Smallwood, *A.*
- Fallot, *M.* See Arcay, *G. P.*
- Faltis, *F.*, and Pirsch, *J.*, allenetetracarboxylic ester, A., 856.
- Faludi, *F.*, formation of fibrinogen, A., 690.
- Fandrich, *B.* See Korczynski, *A.*
- Fanselow, *H.* See Wrede, *F.*
- Fanti, *P.*, and Kabos, *M.*, distillation of cholesterol with zinc dust, A., 53.
- Fanti, *P.* See also Fromm, *E.*
- Faragher, *W. F.*, Gruse, *W. A.*, Garner, *F. H.*, and Gulf Refining Co., distillation [of petroleum oil], (P.), B., 67.
- Faragher, *W. F.*, Gruse, *W. A.*, and Gulf Refining Co., process of cracking hydrocarbon oils, (P.), B., 469*.
- process and apparatus for cracking hydrocarbon oils, (P.), B., 771*.
- Faragher, *W. F.* See also Morrell, *J. C.*
- Farbenfabriken vorm. *F. Bayer & Co.*, preparation of an anthelmintic, (P.), B., 29.
- manufacture of water-insoluble azo-dyes, (P.), B., 275.
- manufacture of azo-dyes, (P.), B., 325.
- manufacture of quinoline derivatives, (P.), B., 379.
- manufacture of pharmaceutical products, (P.), B., 379.
- plant sprays, (P.), B., 422.
- Farbenfabriken vorm. *F. Bayer & Co.*, material for destroying animal and plant pests, (P.), B., 536.
- vat dyes of the anthraquinone series, (P.), B., 647.
- Farbenfabriken vorm. *F. Bayer & Co.* See also Badische Anilin- & Soda-Fabrik, and I. G. Farbenind. A.-G.
- Farbwerke vorm. Meister, Lucius, & Brüning, dressing seeds, (P.), B., 88.
- separating solid salts of ammonium and of the alkalis and alkaline earths, (P.), B., 251.
- azo-dyes for wool, (P.), B., 292.
- manufacture of condensation products of the anthracene series [Bz-methylbenzanthrones], (P.), B., 326.
- Farbwerke vorm. Meister, Lucius, & Brüning. See also I. G. Farbenind. A.-G.
- Fargher, *R. G.*, Hart, *L. R.*, and Probert, *M. E.*, steeping process; constituents of cotton soluble in water or dilute mineral acids, and effect of their removal on subsequent scouring, (P.), B., 292.
- Fargher, *R. G.*, and Higginbotham, *L.*, analysis of cotton; effect of disruption of the cotton hair on the extraction of fat, wax, and resin, B., 870.
- Farine, *A.*, dissolution of lead by water in pipes, B., 318.
- Farkas, *G.*, and Tangl, *H.*, action of choline and histamine on the excretion of dyes from the blood, A., 481.
- action of extracts of spleen on the excretion of dyes from the blood, A., 485.
- Farkas, *L.*, velocity of formation of nuclei in supersaturated vapours, A., 524.
- Farmer, *E. H.*, and Duffin, *W. M.*, muconic and hydromuconic acids. IV. Geometrical form and reducibility, A., 448.
- Farmer, *E. H.*, and Healy, *A. T.*, properties of conjugated compounds. II. Addition to butadiene esters, A., 646.
- Farmer, *E. H.*, and Kracovskii, *J.*, effect of *gem*-dialkyl groups on the formation and stability of the anhydrides of dicarboxylic acids, A., 447.
- Farmer, *E. H.*, and Richardson, *H. L.*, glutaconic acids. XXI. Non-formation of Δ^2 -tetrahydroisophthalic acid by reduction of isophthalic acid, A., 244.
- Farmer, *E. H.*, and Ross, *J.*, formation and stability of associated alicyclic systems. III. Change from "meta" to "para"-bridged rings, A., 148.
- Farmer, *W.*, and Firth, *J. B.*, reduction of silver compounds in alkaline solution, A., 949.
- reduction of arsenic compounds in acid and in alkaline solution by sodium hyposulphite; production of sodium arsenohyposulphite, A., 950.
- Farnsworth, *M.*, X-ray study of limes having different plasticities, B., 476.
- re-use of plaster of Paris moulds, B., 524.
- Farnsworth, *W. M.*, and Central Alloy Steel Corporation, re-melting chromium-steel scrap, (P.), B., 819.
- Farr, *H. V.* See Collins, *W. D.*
- Farrar, *H. E.*, and King, *P. E.*, action of ammonia on wool, B., 293.
- Farrel Foundry & Machine Co., machine for mixing rubber and like material, (P.), B., 885.
- Farrell, *D.*, and Helmholtz, *A. W.*, blasting methods and means, (P.), B., 158*.
- Farrow, *E. S., jun.*, and Eastman Kodak Co., treating cellulose acetate, (P.), B., 746.
- Farrow, *E. S., jun.* See also Baybutt, *R.*
- Farrow, *F. D.*, and Jones, *E. H.*, examination of the process of sizing cotton yarns on an experimental tape frame, B., 293.
- Farrow, *F. D.* See also Cunliffe, *P. W.*
- Farrow, (*Miss*) *M.*, system calcium ferrocyanide-sodium ferrocyanide-water. II., A., 628.
- Fasal. See Ramart, (*Mme.*) *P.*
- Fasting, *J. S.*, process and apparatus for burning cement, (P.), B., 443.
- [cooling attachment for] rotary kilns, (P.), B., 689.
- Fasting, *J. S.*, and Smidh, *F. L.*, & Co., apparatus for agitating slurry, etc., (P.), B., 367.
- treatment of wet raw materials in the manufacture of cement, (P.), B., 678*.
- Fastmann, *P.* See Weiss, *R.*
- Fatejev, *L.* See Zelinski, *N. D.*
- Fatta, *A.* See Mazzuchelli, *A.*
- Faulkner, *I. J.* See Richards, *E. M.*
- Faultless Rubber Co. See Miller, *T. W.*

- Faurholt, C., monoalkylcarbonates. IV. Solutions of carbon dioxide in dry methyl and ethyl alcohols; monomethyl and monoethyl carbonates in dry alcoholic solution and in the solid state, A., 515.
- monoalkylcarbonates. III. Kinetics of the decomposition of monoalkyl carbonates and of their formation from hydrogen carbonate in alkaline aqueous solution, A., 525.
- monoalkylcarbonates. I. Formation of monoalkylcarbonates from sodium hydrogen carbonate in aqueous solutions of alcohols; equilibrium between alcohol, monoalkylcarbonate, carbonate, and carbon dioxide in aqueous solutions. II. Formation of monoalkylcarbonic acids and their salts by solution of carbon dioxide in aqueous solutions of alcohols at different acidities, A., 539.
- Fausser, G. See "Montecatini" Soc. Gen. per l'Ind. Mineraria ed Agricola.
- Fausser, H. See Waser, E.
- Faust, E., relation between the slagging of iron and of manganese in the basic open-hearth process, B., 910.
- Faust, J. B., by-products of the Chilean nitrate industry, B., 250.
- Faust, O., optical properties of sols and gels containing cellulose, A., 110.
- birefringence of cellulosic gels, A., 201.
- surface tension and viscosity of solutions of the hydroxides of potassium, sodium, lithium, thallium, and barium, and of sodium carbonate solution, A., 409.
- optical double refraction of artificial silk and films, A., 513.
- Faust, O., and Esselmann, P., system sulphuric acid-sodium sulphate-water, A., 22.
- Faust, O., and Fischer, Eugen, analysis of volatile liquids and gases; determination of arsenic in volatile liquids, A., 125.
- Faust, O., Graumann, E., and Fischer, Eugen, ripening of viscose, B., 41.
- Faust, O., and Littmann, K., [detection of abnormal treatment of] artificial silk (cellulose hydrate), B., 69.
- Faust, O., and Vogel, H., apparatus for continuous dialysis, (P.), B., 959.
- Fauvel, A. See Müller, Erich.
- Favrel, G., standardisation of *N*- and 0.1*N*-acid and alkali solutions, A., 743.
- Fawcett, G. S. See Tintometer, Ltd.
- Fawcett, R. C., and Robinson, R., polynuclear heterocyclic aromatic types. III. Pyrroloquinoline derivatives, A., 1088.
- relative directive powers of groups of the forms RO and RR'N in aromatic substitution. VII. Nitration of benzphenetidine and of *o*-, *m*-, and *p*-nitrobenzphenetidides, A., 1181.
- Fawson, H. R. See Fairbourne, A.
- Faxén, H., and Holtsmark, J., motion of slow electrons in a gas, A., 1119.
- Fazel, C. S., and Karrer, S., decomposition of nitrogen pentoxide by light, A., 29.
- Fearon, W. R., significance of cyanic acid in the carbamide-urease system, A., 76.
- Fearon, W. R., and McKenna, C. B., photosynthesis of carbamide from ammonium carbonate, A., 1175.
- Featheredge Rubber Co., method of forming sponge rubber materials [of great length], (P.), B., 790.
- Feder, E., and Rath, L., determination of alcohol in spirits by distillation, B., 89.
- Federal Gypsum Products Co. See Parkhurst, L. M.
- Federal Laboratories, Inc. See Bradner, D. B.
- Federal Phosphorus Co. See Booth, C. F.
- Fedorov, A., system tin-cadmium in the crystalline state, A., 517.
- Fedorova, A. M. See Rodionov, V. M.
- Fedorova, O. S., colorimetric determination of perchlorate in the presence of chlorate, A., 1159.
- colorimetric determination of perchlorate in saltpetre, B., 600.
- Fedotév, P. P., and Petrenko, T. V., oxidation of iron by steam, air, and carbon dioxide at high temperatures, B., 15, 192.
- Fehér, D., carbon dioxide nutrition of the forest, A., 385.
- Fehnel, J. W. See Drinker, K. R.
- Fehr, C. See Skita, A.
- Fehrle, A. See I. G. Farbenind. A.-G.
- Feibelmann, R. See Chemische Fabrik von Heyden A.-G.
- Feigl, F., co-ordination studies on the analytical behaviour of heavy metal sulphides. II, A., 36.
- detection of magnesium, especially in rocks, by means of diphenylcarbazide, A., 1161.
- Feigl, F. [with Bäcker, E., and Rosenberg, L.], composition and behaviour of precipitated copper and iron sulphides, A., 1042.
- Feigl, F. [with Gleich, H., and Schacherl, R.], co-ordination studies on the analytical behaviour of heavy metal sulphides. III, A., 37.
- Feigl, F., and Fürth, M., compounds of nickel with *o*-phenylenediamine and tolylene-3 : 4-diamine, A., 1179.
- Feild, A. L., and Electro Metallurgical Co., recovering metals from liquids and compositions therefor, (P.), B., 225.
- Feilner, A. See Rosenhauer, E.
- Feirer, W. A., obligate thermophilic bacteria from soil, B., 150.
- Feist, F., and Chen, C. A., cyclopropenedicarboxylic acids, A., 150.
- Feist, F., Delfs, D., and Langenkamp, B., xanthophanic acids. I, A., 151.
- Feist, F., Janssen, H., and Chen, C. A., xanthophanic acids. II. Production of naphthalene compounds from derivatives of acetoacetic esters, A., 357.
- Feist, K., effect of poisons on the larvae of flies, B., 206.
- Feist, K., and Siebenlist, (Frl.) E., [derivatives of 5 : 6-dihydroxycoumaranone], A., 671.
- Feith, J., Ziegler, J. W., and Patten, J. C., production of cellulose sheets, (P.), B., 165.
- Feitknecht, W., behaviour of difficultly soluble metal oxides in solutions of their salts. I. Magnesium oxide, B., 73.
- behaviour of difficultly soluble metal oxides in solutions of their salts. II. Magnesium oxide cements, B., 300.
- Feldberg, W., and Schlif, E., influence of thyroid on the stimulation of autonomic nerves and on the action of adrenaline, A., 903.
- Feldenheimer, W., treatment of earthy minerals, (P.), B., 333*.
- Feldt, A. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Felger, E. See Scheibe, G.
- Felix, C. R., manufacture of a composition for treating [fire-proofing] fibre products, (P.), B., 904.
- Felix, K., and Harteneck, A., structure of the histone of the thymus. III. Acid- and base-binding power after peptic digestion, A., 477.
- Fell, E. W., strain in steel; nature and detection of certain phenomena observed in permanently deformed steel, B., 845.
- Fellenberg, T. von, iodine metabolism. III, A., 692.
- occurrence of iodine in nature. XI. Geochemistry of iodine. II, A., 955.
- determination of organic material by oxidation with chromic acid, A., 1100.
- Fellenberg, T. von, and Pacher, H., iodine content of the thyroid gland of various breeds of ox and its relationship to the condition of these glands, A., 1104.
- Fellenberg, T. von. See also Lunde, G.
- Feller, A. See I. G. Farbenind. A.-G.
- Fellers, C. R., and Parks, C. F., proximate composition of Pacific Coast crabs, A., 372.
- Felling, W. See Popp, M.
- Fellows, H. C. See Coleman, D. A.
- Fells, H. A., and Firth, J. B., phenomena arising from the addition of hydrogen peroxide to the sol of silicic acid, A., 531.
- function of water present in silicic acid gel; structure of silicic acid gel, A., 935.
- sorption of the vapours of benzene and toluene by silicic acid gel impregnated with carbon (carbo-gel), B., 135.
- Fells, H. A. See also Firth, J. B.
- Felsing, W. A., and Durban, S. A., vapour pressures, densities, and some derived quantities for acetone, A., 13.
- Felten & Guillaume Carlswerk Akt.-Ges., paper insulation for electric cables, etc., (P.), B., 117.
- manufacture of paper for electric cables, (P.), B., 185.
- water-proof and dust-proof sack or like container for conveying granular, dusty, and brittle materials, (P.), B., 242.
- production of insulating paper containing phenol resins, (P.), B., 599.
- method of improving the properties of gutta-percha, balata, etc., (P.), B., 824.
- Felten & Guillaume Carlswerk Akt.-Ges. See also Haanen, C. A., and Schürer, E.
- Fener, V., alloy, (P.), B., 527.
- Feng, C. T. See Read, B. E.
- Fenger, F., and Andrew, R. H., isoelectric precipitation of pepsin, A., 793.
- Fenn, W. O., gas exchange of nerve during stimulation, A., 583.
- Fenning, R. W., and Tizard, H. T., dissociation of carbon dioxide at high temperatures, A., 826.

- Fenoglio, *M.*, pyrrargyrite and proustite from Sarrabus (Sardinia), A., 336.
- Feodoroff, record of the gases from coke ovens at Routhchenkovo, B., 546.
- Feofilaktov, *V. V.*, condensation of pyruvic acid with para-formaldehyde in the presence of sulphuric acid, A., 132, 751.
- Ferdmann, *D.* See Palladin, A.
- Feret, *R.*, hardening of roads containing silicates, B., 412.
- Ferguson, A., and Vogel, *I.*, Storch's equation, a general dilution formula, and the validity of the law of mass action at limiting dilutions, A., 936.
- calculation of the equivalent conductivity of strong electrolytes; aqueous solutions. II. Application of data at 0°, 18°, and 25°. III. Mobilities of the hydrogen and hydroxyl ions, A., 941.
- Ferguson, A., and Vogel, *I.*, agreement with experiment of the dilution formula deduced from the Debye-Hückel theory, A., 1027.
- Ferguson, A. L., and Bacon, *E. K.*, diffusion-potential measurements applied to hydrochloric acid-gelatin systems. I. Equivalent weight of gelatin, A., 935.
- Ferguson, A. L., and Schluchter, A. W., transference number and activity of sodium hydroxide in aqueous solution, A., 828.
- Ferguson, A. L. See also Bacon, *E. K.*
- Ferguson, *J.* See McBain, *J. W.*
- Ferguson, *J. B.*, system water-phenol, A., 628.
- Ferguson, *L.* See Schumacher, *E. E.*
- Ferguson, *W. B.*, Ferguson density comparator, B., 509.
- Ferguson, *W. F. C.*, spectrum of auric chloride, A., 97.
- Féricéan. See Wahl, A.
- Fermi, *E.*, quantum mechanics and the magnetic moment of atoms, A., 88.
- Fermi, *E.*, and Rasetti, *F.*, measurement of the ratio $h:k$ by means of the anomalous dispersion of thallium, A., 610, 713.
- Fernandes, *L.*, hydrogenomolybdotungstates, A., 33.
- co-ordination valency of two hydroxyl groups in the *ortho*-position. III. Polyphenolic complexes of the rare earths, A., 52.
- sulpho-salts, A., 501.
- Fernandes, *L.*, and Palazzo, *F.*, sulpho-salts. II. Sulphoxypoly-molybdates of ammonium and of guanidine, A., 636.
- Fernandes, *L.* See also Rolla, *L.*
- Fernandez, A. See Sabatier, *P.*
- Fernando, *F.* See Necheles, *H.*
- Fernau, A., effect of radium radiation on pseudoglobulin, A., 1212.
- Fernbach, A., Schoen, *M.*, and Mori, *M.*, action of yeast on sugars rendered optically inactive by dilute alkalis, A., 279.
- so-called selective fermentation, A., 484.
- Fernbach, A., Yuill, *J. L.*, and Rowntree & Co., Ltd., production of citric acid, (P.), B., 344.
- Ferrari, A., lead suboxide, A., 9.
- crystalline structure of iodine. I., A., 611.
- crystal structure of nickelous and cobaltous chlorides, A., 1128.
- Ferraris, *M.*, behaviour of ψ -cocaine hydrogen *d*-tartrate and of cocaine hydrochloride towards reagents, A., 1208.
- Ferré, *L.*, wines from vintages attacked by the *Cochylis* and *Eudemis*, B., 152.
- Ferrero, A. See Briner, *E.*
- Ferrey, *G. J. W.*, detection of chlorides in mercuric oxide, B., 600.
- Ferrier, *R.*, two magnetic moments of the atom, A., 709.
- Ferris, S. W. See Henderson, *L. M.*, and Hill, *J. B.*
- Fesca, P. (C. A. Fesca & Sohn), centrifugal separators, (P.), B., 128.
- Feske, *E.* See Borsche, *W.*
- Fessler, *M. J.*, reclaiming rubber, (P.), B., 534.
- Fester, *G.*, and Bertucci, *F.*, lixiviation of copper minerals with ammonia and preparation of arsenical compounds of copper, B., 143.
- Feszczenko-Czopowse, cementation of iron, nickel, and cobalt by means of boron, B., 278.
- Fetkenheuer, B. See Cremer, *E.*, and Siemens & Halske Akt.-Ges.
- Feuchter, *H.*, stretched rubber, its "fusion line," and its density, B., 119.
- fusion line of stretched rubber and its relation to the density; law of elastic state, B., 148.
- spiral structure of rubber, B., 564.
- Feuerstein, K. See Pauly, *H.*
- Feuge, *J. J.*, and Browne, *L. R.*, obtaining fibres from flax, hemp, jute, ramie, and other suitable plants, (P.), B., 103.
- Feulgen, *R.*, group in thymus-nucleic acid responsible for the "nuclear" reaction. III., A., 581.
- Feulgen, *R.*, and Imhäuser, *K.*, determination of plasmal in blood-serum, A., 369.
- Feulgen, *R.* See also Stepp, *W.*
- Feussner, *O.*, recrystallisation of silver and platinum, A., 1016.
- Feussner, *O.*, and Ramb, *E.*, damping properties of some metals [iron, copper, and aluminium] in torsional vibration, B., 336.
- Feuszner, *O.* See Heraens, *W. C.*
- Feyertag, *E.*, and Zellner, *J.*, plant chemistry. XVII. *Rhododendron hirsutum*, A., 386.
- Fiala, *R.*, apparatus for the precipitation of liquids from vapours and gases, (P.), B., 929.
- Fialkov, A., determination of iodine value in aqueous solutions [of oils], B., 946.
- Fialkov, *J.*, determination of the iodine value [of oils] in aqueous emulsions, B., 304.
- Fialkov, *J. A.*, dicyanotriazole, A., 1205.
- Fibreco, Société Co-opérative, enamelling plates or objects of fibrous cement with vitreous enamels, (P.), B., 655.
- Ficheroille, *H. E.* See Jooss, *P. F.*
- Fichter, *F.*, detection of organic diacyl peroxides at the anode, A., 1153.
- Fichter, *F.*, and Bladergroen, *W.*, oxidation with fluorine. VII. Action of fluorine on water and alkali hydroxide solutions. VIII. Unstable peroxide from sulphuric acid. IX. Action of fluorine on phosphoric acid, phosphates, and pyrophosphates. X. Action of fluorine on carbonates and borates, A., 741.
- Fichter, *F.*, and Rinderspacher, *M.*, electrochemical oxidation of benzene homologues. III. *p*-Xylene, A., 48.
- electrochemical oxidation of benzene homologues. IV. *o*-Xylene, A., 348.
- electrochemical oxidation of phenols; *m*-xylenol, thymol, and potassium isoeugenyl sulphate, A., 353.
- Fichter, *F.*, and Schlager, *E.*, electrochemical oxidation of β -phenylpropionic acid. II., A., 570.
- Fichter, *F.*, and Tschudin, *W. F.*, determination of bromates in presence of chlorates, A., 330.
- Fichter, *F.*, and Wolfmann, *H.*, oxidations with fluorine. VI. Preparation of cobaltic sulphate, A., 123.
- Ficker, *O.*, fixation of atmospheric nitrogen, (P.), B., 652.
- Fiedler, *H.* See Pummerer, *R.*
- Fiehe, *J.*, German honeys, B., 25.
- Field, B. E., Franks, *R.*, and Haynes Stellite Co., wear-resisting alloy, (P.), B., 448.
- Field, *C.*, and Chemical Machinery Corporation, method and apparatus for heating, cooling, and controlling reactions at high temperatures, (P.), B., 287.
- Field, *C.*, and National Aniline & Chemical Co., Inc., sublimation apparatus, (P.), B., 897.
- Field, *C. C.*, [corrugated asbestos-cement] roofing and covering materials for buildings, (P.), B., 412.
- Field, *C. H.*, and Owen, *G.*, electrolytic oxidation of organic compounds, (P.), B., 541.
- Field, *M. C.* See McBain, *J. W.*
- Fielding, *C. W.*, manufacture of sulphuric acid, (P.), B., 748.
- Fiedner, A. C. See Selvig, *W. A.*
- Fierz, *H. E.* See Loeber, A.
- Fierz-David, *H. E.*, anthraquinonesulphonic acids, A., 771.
- formation of 1:2- and 2:3-dichloroanthraquinones from *o*-dichlorobenzene, A., 1079.
- Fierz-David, *H. E.* [with Krebster, A., and Anderau, *W.*], anthraquinonesulphonic acids, A., 463.
- Fieser, *L. F.*, alkylation of hydroxynaphthaquinone. I. Oxygen ethers, A., 59.
- alkylation of hydroxynaphthaquinone. II. Carbon alkylation, A., 155.
- alkylation of hydroxynaphthaquinone. III. Synthesis of lapachol, A., 462.
- Fieser, *L. F.*, and Ames, *L. A.*, comparison of heterocyclic systems with benzene. II. Reduction potentials of quinones containing the pyridine, glyoxaline, triazole, and thiophen rings, A., 1198.
- Filatov, *M.*, mechanical analysis of soil by the method of decantation with water, B., 263.
- Filaudeau, *G.*, boiling-point apparatus for determining strength of wines, B., 89.
- Filip'ev, *P. I.*, dry defecation, B., 567.
- Filippi, *E.* See Mameli, *E.*

- Filippov, A., intensity measurements on the spectra of caesium and potassium, A., 490.
- Filippov, A., and Gross, E., fine structure of the spark spectrum of caesium, A., 390.
- Filmer, G. B., production of metallic [zinc] oxides, (P.), B., 370.
- Filtrators, Ltd., and Saks, V., manufacture of an emulsion for use in the disincrustation of, or removal of scale from, boilers, hot wells, condensers, and the like, (P.), B., 433.
- Filz, H., production of ozone or ozonised oxygen, (P.), B., 299.
- Finch, G. I., mercury vapour trap, A., 641.
[flame and combustion], A., 1146.
- Finch, G. I., and Cowen, L. G., gaseous combustion in electric discharges. II. Ignition of electrolytic gas by direct current discharges, A., 1146.
- Finch, G. I., and Karim, A., saponification of olive oil, B., 49.
- Finch, G. I., and Stimson, J. C., electrical condition of hot surfaces during the adsorption of gases. I. Gold and silver surfaces at temperatures up to 850°, A., 1135.
- Fincke, H., examination of cacao beans and cacao products, IV., B., 154.
- Findlay, J. H. See Robertson, J. K.
- Finger, H., and Schott, W., compounds resembling curcumin, A., 668.
- Fingerling, G., calculation of the value of foodstuffs for milk production and for fattening stock, B., 202.
- Fink, C. G., and Mantell, C. L., laboratory hydrogen and oxygen generator, A., 1048.
gaseous reduction of tin concentrates, B., 369.
gaseous nature of carbon reduction of tin concentrates, B., 680.
- Fink, C. G., Pan, L. C., and Chemical Treatment Co., production of protective coatings [on metals], (P.), B., 115.
- Fink, C. G. See also Chromium Corporation of America.
- Fink, D. E., determination of small amounts of arsenic in insect tissue, A., 600.
micro-determination of the relative distribution of glutathione in insects, A., 691.
- Fink, G. J. See Holmes, M. E.
- Fink, H., and Euler, H. von, effect of pretreatment on the properties of top-yeast and bottom-yeast, B., 501.
- Fink, H. See also Euler, H. von.
- Finkeldey, W. H., micro-structure of zinc coatings, B., 488.
- Finkelstein, A., extraction of aluminium ore, (P.), B., 658.
- Finkelstein, A. See also Chemische Fabrik Bernburg H. Wagner & Co.
- Finkelstein, W., electrochemical investigations on the metallic properties of iodine, A., 24.
properties of bromine as solvent, A., 303.
ion transference in bromine solutions of phosphorus pentabromide, A., 521.
- Finkle, J. R. See Talbert, G. A.
- Finlayson, H. H., volatile oils from *Xanthorrhoea arborea*, *X. hastilis*, and *X. reflexa*, B., 27.
- Finlayson, T. C. See Smith, E. W.
- Finley, D., and Paraffine Cos., Inc., manufacture of an emulsion, (P.), B., 403.
- Finley, W. L., and Bauer, A. D., coking of oil shales, B., 672.
- Finn, R. B., and Finn Metal Works, J., apparatus for the production of metal [zinc] dust, (P.), B., 682.
- Finn Metal Works, J. See Finn, R. B.
- Finndorff, F. See Kinder, K.
- Finnern, H. See Remy, H.
- Finney, W. H., Dworkin, S., and Cassidy, G. J., effects of lowered body-temperature and of insulin on the respiratory quotients of dogs, A., 594.
- Finney, W. H. See also Cassidy, G. J.
- Finzi, C., mercuri-derivatives of *N*-methylthiodiphenylamine, A., 685.
- Fiorentino, U. See Cardoso, E.
- Firestone Tire & Rubber Co. See Shepard, N. A.
- Firgau, H., Hartmann, K., and Voit, E., rate of nitrogen excretion on a protein diet with added carbohydrate, A., 990.
- Firma W. Franke. See Franke, W.
- Firmenich, F. See Naef, M.
- Firth, E. M., Hodkin, F. W., Parkin, M., and Turner, W. E. S., effect of moisture on the melting, working, and other properties of potash-lead oxide-silica glasses of the "English crystal" type, B., 11.
glass-melting experiments with batch materials containing chemically combined water, B., 218.
- Firth, E. M., Hodkin, F. W., and Turner, W. E. S., function of arsenic in soda-lime-silica glass. II., B., 653.
- Firth, E. M., Hodkin, F. W., Turner, W. E. S., and Winks, F., function of arsenic in soda-lime-silica glass. III. Effect of temperature and time, B., 653.
- Firth, E. M. See also Dimbleby, V., and English, S.
- Firth, J. B., and Fells, H. A., behaviour of silicic acid gel during the drying-up process, A., 110.
- Firth, J. B. See also Farmer, W., and Fells, H. A.
- Fischbeck, K., kinetics of reaction in crystal powders, A., 943.
- Fischbeck, K., and Einecke, E., electrochemical reduction of solid electrodes, A., 1153.
- Fischbeck, K., and Jellinghaus, W., reaction between silver and sulphur in crystalline powder mixtures, A., 943.
- Fischer, E. See I. G. Farbenind. A.-G.
- Fischer, Ernst, and Tepohl, W., determination of soluble alkali in glass, B., 43.
- Fischer, Eugen. See Faust, O.
- Fischer, F., synthesis of petroleum hydrocarbons, B., 161.
synthesis of petroleum, B., 244.
ten years of coal research, B., 321.
- Fischer, F., and Fuchs, W., growth of mould fungi in coal. I. and II., B., 719, 834.
ash content of lignites, B., 833.
- Fischer, F., and Jäger, A., hydrogenation of lignite in the presence of aqueous bicarbonate solution, B., 271.
- Fischer, F., and Piehler, H., formation of hydrocarbons from lignite coke at 500°, B., 864.
- Fischer, F., and Tropsch, H., production of carbon, (P.), B., 66.
purifying gases from sulphur, (P.), B., 385.
occurrence of synthol in the process of petroleum synthesis under pressure, and the synthesis from water-gas of paraffin hydrocarbons of high mol. wt., B., 514.
production of paraffin hydrocarbons with more than one carbon atom, (P.), B., 695.
aluminium ovens for catalytic purposes, B., 927.
- Fischer, F., and Tropsch, H. [with Ter-Nedden, W.], synthesis of paraffin hydrocarbons of high mol. wt. from carbon monoxide, A., 748.
- Fischer, H., enzymatic cleansing materials, toilet articles, etc., (P.), B., 258.
- Fischer, Hans, and Andersag, H., synthesis of β -isocoprotophyrin and of opsopyrrolecarboxylic acid, A., 1206.
- Fischer, Hans, Halbig, P., and Walach, B., porphyrin syntheses. IX. New porphyrin synthesis; oxidation of porphyrins, A., 469.
- Fischer, Hans, and Heisel, P., porphyrin syntheses. X. Synthesis of isouroporphyrin and carboxyhæmatic acid, A., 1088.
- Fischer, Hans, and Kotter, F., degradation of hæmatoporphyrin to bromobromohydroxyethyltetramethylporphindipropionic acid, A., 1094.
- Fischer, Hans, and Lindner, F., bile pigment. X. (Porphyrin synthesis. V.) Conversion of bile pigment and bilirubin acid into mesoporphyrin; hæmopyrrole from mesobilirubinogen, A., 261.
natural porphyrins. XXI. Deuterohæmin and deuteroporphyrin, A., 262.
simple method of preparation of the iron salt of tetramethyl-hæmatoporphyrin, A., 836.
- Fischer, Hans, and Treibs, A., syntheses of hæmopyrrolecarboxylic acid, A., 365.
porphyrin syntheses. XI. Ætioantho- and mesoxanthoporphinogens, A., 1206.
- Fischer, Hans, and Walter, E., determination of active hydrogen in hæmin, in some of its derivatives, and in pyrroles. II., A., 1099.
- Fischer, Heinrich. See Wedekind, E.
- Fischer, Hellmut, detection and determination of minute quantities of beryllium, A., 36.
- Fischer, H. O. L., and Taube, C., preparation of isopropylidene ethers by means of acetone and zinc chloride, A., 338.
glycerinaldehyde and glycylaldehyde, A., 857.
- Fischer, H. O. L., Taube, C., and Baer, E., crystalline glycerinaldehyde and its transformation into dihydroxyacetone, A., 340.
- Fischer, J. See Foerster, F.
- Fischer, Joh. See Müller, Gustav.
- Fischer, K., simple apparatus for the removal of ammonium salts by volatilisation, B., 73.
- Fischer, M. H., and Hooker, M. O., electrical resistance of concentrated sulphuric acid and theory of hydration, A., 113.

- Fischer, O. See Simon, A.
- Fischer, Oskar, production of mixtures of rubber with inorganic and organic vulcanisation accelerators, (P.), B., 260.
- Fischer, P., electrical conductivity of solid oxide mixtures, A., 23.
- Fischer, P., electrical conductivity of solid cuprous bromide, A., 717.
- Fischer, V., vapour-pressure equation at low temperatures, A., 103.
- calculation of invariants in the determination of vapour-pressure and m.-p. curves, A., 615.
- Fischer, W. See Toennissen, E.
- Fischer, Walther. See Houben, J.
- Fischer, Werner. See Biltz, W.
- Fischer, W. M., and Schmidt, A., rhythmical precipitation of calcium hydroxide, A., 199.
- Fischer Hollinshed Co., Inc. See Grönningaeter, S.
- Fischl, F. See John, H.
- Fischler, F., action of sugar in the organism. II. Decomposition of dextrose by very dilute alkali, A., 449.
- action of sugar in the organism. III. Action of degradation products of dextrose on disturbances of carbohydrate metabolism, A., 486.
- Fischler, F. See also Sauer, E.
- Fisher, J., adsorption of inorganic ions by "Carboraffin" and "Supra-Norit" in the filtration of thick-juice, B., 395.
- Fish, F. K., jun., preparation of paper pulp, (P.), B., 474, 552*.
- manufacture of paper pulp; treatment of plant material, (P.), B., 552*.
- treating plant material for the removal of incrusting materials from the fibre, (P.), B., 745.
- manufacture of pulp from fibrous material, (P.), B., 839.
- Fishel, W. P., and Wooddell, J. F., action of pure carbon monoxide on iron at elevated temperatures, B., 525.
- Fisher, E. A., rate of drying of wheat flour, starch, and gluten, B., 638.
- factors affecting evaporation of water from soil. II. Discontinuity of the drying process, B., 662.
- Fisher, H. J., determination of carbon disulphide in its emulsions, B., 876.
- Fisher, H. L., and Goodrich Co., B. F., production of rubber isomer, (P.), B., 85*.
- composition of matter [nitrated rubber], (P.), B., 149.
- manufacture of a rubber conversion product [resin], (P.), B., 917.
- Fisher, J. W. See Flints, H. T.
- Fisher, M. S. See Andrew, J. H.
- Fisher, T., and Fisher Engineering Corporation, apparatus for separating liquids of different specific gravity, (P.), B., 959.
- Fisher Engineering Corporation. See Fisher, T.
- Fisk, H. G. See Watts, A. S.
- Fiske, C. H., and Subbarow, Y., nature of the "inorganic phosphate" in voluntary muscle, A., 990.
- Fitch, J. B. See Hughes, J. S.
- Fitter, H. R., determination of antimony in white metals, etc., B., 880.
- Fitzgerald, F. A. J., use of electric furnaces at Niagara Falls, 1902 to 1926, B., 303.
- Harper electric kiln, B., 332.
- Fitzgerald, F. A. J., and Harper Electric Furnace Corporation, electric furnace, (P.), B., 850, 914.
- Flachs, R. See Schläpfer, P.
- Flaherty, E. M., and Du Pont de Nemours & Co., E. I., production of low-viscosity lacquer and film, (P.), B., 563.
- Flammer, E., and Kelber, C., manufacture of soap [flakes], (P.), B., 304.
- Flammer, E. F., Silliman, H. E., and Rainbow Photo-Reproductions, Inc., photoprinting, (P.), B., 622*.
- Flanigan, R. J. See Klosky, S.
- Flanzy, M. See Semichon, L.
- Flaschner, E. See Streibinger, R.
- Fleck, L. C. See Hawley, L. F.
- Fleisch, A., duplicate determinations as a measure of accuracy in quantitative analysis, A., 80.
- Fleischer, E., recovery of iron from ferruginous sands, iron-ore dust, and pulverised ores, (P.), B., 846.
- Fleischer, R., photo-electric electron emission and the optical absorptive power of potassium in relation to the gas content of the metal, A., 180.
- influence of oxygen on the optical absorptive power and the photo-electric electron emission of potassium, A., 287.
- Fleischmann, R., transformation phenomena of low-melting alloys (Rose's metal), A., 195.
- Fleischmann, W., effect on cell metabolism of the hormone of the thyroid gland; experiments with leucocytes, A., 994.
- Fleischmann Co., manufacture of yeast, (P.), B., 889.
- Fleischmann Co. See also Brown, E. B., and Hildebrandt, F. M.
- Fleissner, H., removing iron from clay, kaolin, etc., B., 483.
- drying coke, etc., (P.), B., 594.
- Fleming, C. S., and Reedy, J. H., waste sulphite liquor as an agricultural spray, B., 328.
- Fleming, J. W. See Lewis, H. F., and Merrill, H. B.
- Fleming, W. E., water and water solutions of organic compounds as dips for the soil of potted plants infested with the Japanese beetle, B., 121.
- effect of soil micro-organisms on paraffin used as a coating to decrease the injurious action of lead arsenate on plant roots, B., 535.
- Flentje, M. E., calcium and magnesium hydroxides as coagulating agents, B., 318.
- Flerov, K., soil colloids and critical soil humidity for higher plants, B., 498.
- sorption of nitrates in soils, B., 886.
- Fletcher, R. J., and Amalgamated Dyestuffs & Chemical Works, Inc., disazo-dye of diphenylcarbamide and chromotrope acid, (P.), B., 325.
- Flett, L. H., and National Aniline & Chemical Co., Inc., production of polyazo-colouring matters, (P.), B., 292.
- Fleurent, E., composition of fenugreek seed and the inconvenience of its mixture with grain destined for milling, B., 712.
- Fleurent, E. See also Bary, P.
- Fleury, P., and Sutu, Z., hydrolysis of α - and β -glycerophosphoric acids by chemical reagents and by enzymes, A., 116.
- Flieg, O. See I. G. Farbenind. A.-G.
- Flint, C. F., micro-method for the determination of nitrate in soil solutions and extracts, B., 826.
- Flint, H. T., and Fisher, J. W., contribution to modern ideas on the quantum theory, A., 710.
- Flintermann, R. F., and General Electric Co., oxidation-resisting material [iron-aluminium-titanium alloy], (P.), B., 819.
- Flintkote Co., Rahr, C. E., and Drake, R. E., roofing material, (P.), B., 444.
- Flodin, H. G., and Gustafsson, E. G. T., direct reduction process for producing carbon-binding metal or metal alloy, (P.), B., 337.
- production of iron and other carbon-binding metals and alloys thereof with a certain percentage of carbon directly out of oxide ore, (P.), B., 337.
- Floess, R. See Popp, M.
- Flössner, H. See Schwinning, W.
- Flor, H. H., fungicidal activity of furfuraldehyde, A., 996.
- Flor, K. See Salzwirk Heilbronn Akt.-Ges.
- Florence, G., unsaturated acids, A., 540.
- alkaloid trichloroacetates; use of trichloroacetic acid in toxicology. I., A., 1098.
- alkaloid trichloroacetates; use of trichloroacetic acid in toxicology. II. Detection of alkaloids in viscera, A., 1219.
- Florentin, D., Kling, A., and Matignon, C., process of obtaining light hydrocarbons from hydroxylated, carboxylated, and like oxygenated organic compounds, (P.), B., 836.
- obtaining light hydrocarbons from animal or vegetable oils by the simultaneous action of heat, hydrogen under pressure, and a dehydrating catalyst, (P.), B., 836.
- Florentin, D. See also Kling, A.
- Flosdorf, E. W. See Kistiakovski, G. B.
- Flow Coal Washery Co., Ltd., Russell, A., and Austin, S., coal-washing apparatus, (P.), B., 209.
- Flower, B. See Grabfield, G. P.
- Flowers, A. E., McBerty, F. H., and Dietrich, M. A., chemical processes for re-refining and decolorising dry-cleaners' solvent by continuous automatic methods, B., 744.
- Flubacher-Brodbeck, M. See Messmer, A.
- Fluch, P., acidimetric determination of nickel as the dicyano-diamidine salt, A., 37.
- Flürseheim, B. J., brisant explosive, (P.), B., 381*.
- Flury, F., noxious properties of [vitreous] enamels containing antimony, B., 877.
- Fobisher, M., tissue-digesting enzyme (histase) of streptococci, A., 379.
- Focet, B. See Sanfourche, A.
- Focke, A. E. See Blake, F. C.

- Fodor, A., fermentation and hydrogen-ion concentration, A., 20.
 Fodor, A., and Cohn, R., zymase in extracts from green tobacco leaves, A., 592.
 Fodor, A., and Epstein, C., regeneration of invertase from certain carriers, A., 792.
 Fodor, A., and Mayer, K., alcohol sols of the pea globulin, A., 512.
 Fodor, A., and Reifenberg, A., respiration of tobacco leaves during drying; so-called tobacco fermentation, A., 284.
 preparation of metal oxide-silicic acid sols from the ignited oxide and silicic acid hydrosol, A., 620.
 enzymic production of volatile products from nicotine under the influence of tobacco-leaf extracts, A., 907.
 Fodor, A., and Schoenfeld, R., clutiation of various peptidase systems and the activation of clutriates, A., 76.
 Foëx, G., diamagnetism of mesomorphic substances; orientation of smectic substances by the magnetic field, A., 192.
 Foëx, G., and Brunet, (Mlle.) A., magnetic properties of manganese pyrophosphate at various temperatures; measurement of the moment of the manganous ion, A., 288.
 Földi, Z., thermal decomposition of sulphonic esters, A., 453.
 Föllén, R. See Heide, C. von der.
 Fölling, A. See Dill, D. B.
 Foerster, F., and Centner, K., sulphurous acid and its salts. IV. Action of sulphites on polythionates, A., 32.
 Foerster, F., and Fischer, J., structure of electro-deposited metals, B., 78.
 Foerster, F., and Hamprecht, G., sulphurous acid and its salts. V. Behaviour of pyrosulphites when heated, A., 122.
 Foerster, F., and Pressprich, H., electromotive behaviour of arsenious-arsenic acid solutions, A., 734.
 Förster, G., and Förstner, B., blood bilirubin, A., 475.
 Foersterling, H., producing air gas from inflammable liquids, (P.), B., 625, 836*.
 manufacture of air gas, (P.), B., 625.
 manufacture of air gas from inflammable volatile liquids, (P.), B., 674.
 Förstner, B. See Förster, G.
 Fogg, H. C. See Cork, J. M., and James, C.
 Folin, O., and Ciocalteu, V., determination of tyrosine and tryptophan in proteins, A., 892.
 Folin, O., Trimble, H. C., and Newman, L. H., distribution and recovery of dextrose injected into animals, A., 1217.
 Follansbee, E. M. See Boggs, C. R.
 Folliet, A. See Pétrole Synthétique, Société Anonyme.
 Fonda, G. R., and General Electric Co., incandescence filament, (P.), B., 370.
 incandescence lamp, (P.), B., 562*.
 Fong, W. Y. See Cruess, W. V.
 Fonrobert, E., determination of colour intensity of resins, varnishes, oils, etc., B., 147.
 Fonrobert, E., and Pallauf, F., China-wood oil. II., B., 169.
 Fonrobert, E., and Pistor, K., detection of resins according to Brauer's method, B., 259.
 capillary analysis and its application to the testing of resins by Stock's method, B., 661.
 Fonrobert, E. See also Amann, A., and Chemische Fabrik K. Albert, G.m.b.H.
 Fontaine, J. See Wizinger, R.
 Fontana, C., identity of the crystalline structures of the compounds Fe_3S_4 and FeS , A., 611.
 Fontana, C. See also Levi, G. R.
 Fontès, G., and Thivolle, L., micro-determination of reducing sugars [in solutions and] in blood, A., 690.
 Fonzen-Diacon, tartaric acid index in wines accidentally abnormal, B., 24.
 Fonzen-Diacon and Laforce, salicylic acid as a preservative for samples of wine submitted for examination, B., 25.
 Foolprufe Patent Accumulator Co., Ltd., and Brown, F. G., [separator for] electric storage batteries, (P.), B., 339.
 Foote, H. W., equilibrium in the systems alkali chloride-cobalt chloride-water, A., 313.
 Foote, P. D., quenching of mercury resonance radiation by foreign gases, A., 999.
 depolarisation of resonance radiation, A., 999.
 Foote, P. D. See also Mohler, F. L., and Ruark, A. E.
 Foray, E., extraction of essential oils from plants without distillation, (P.), B., 398.
 decomposition of glucosides [in plants prior to the extraction of perfumes], (P.), B., 398.
 Foray, E., deodorising, clarifying and dehydrating vegetable and animal oils and fats, (P.), B., 563.
 deodorisation, clarification, and neutralisation of vegetable oils, (P.), B., 851.
 Forbes, E. B., Braman, W. W., Kriss, M., Fries, J. A., Jeffries, C. D., Swift, R. W., French, R. B., and Mancher, J. V., jun., net energy values of maize silage, soya-bean hay, lucerne hay, and oats, B., 712.
 Forbes, G. S., and Fuoss, R. M., reaction between bromine and chloride ion in hydrochloric acid; bromine monochloride, A., 209.
 Forbes, G. S., and Leighton, P. A., electrolysis of dichromic acid under a mercury vapour lamp of high intensity, A., 25.
 Forbes, J. C., purification and properties of pepsin, A., 378.
 Ford, G. W. See Hanson, D.
 Ford, J. G., evaluation of transformer oils, B., 960.
 Ford, J. G. See also Rodman, C. J.
 Ford, K. L., and Glass Container Association of America, retort, (P.), B., 767.
 Ford Motor Co. See Gardner, H., and Smith, W. H.
 Fordyce, C. See Lewis, H. F.
 Forestier, H., and Chaudron, G., ferromagnetic characteristics of stable iron sesquioxide, A., 11.
 Forgan-Potts, J., heating or cooling apparatus for air or other gases, (P.), B., 2.
 Forkel, H. See Weygand, C.
 Forrai, E., human fructosediphosphatase. II., A., 220.
 insulin and fructosephosphoric acid, A., 1222.
 Forrai, E., and Sívó, R., physico-chemical properties of bilirubin in body-fluids, A., 1216.
 Forrai, E. See also Sívó, R.
 Forrest, C. N., waterproof coatings and damp courses for buildings and structures, (P.), B., 301.
 Forrest, C. N., and Barber Asphalt Co., asphaltic paving composition, (P.), B., 780.
 Forrest, C. N., and Hayden, H. P., destructive distillation of bituminous materials, (P.), B., 180.
 Forrest, J., magnetic anisotropy of cubic crystals, A., 299.
 Fortières, R., sulphur in gas coke, B., 834.
 Forsans, P. E. H., distillation of solid fuel, (P.), B., 290.
 Forsberg, E. A., and De Laval Separator Co., edge [stream-line] filter, (P.), B., 768*.
 Forschungsinstitut für Bergwerks- & Sprengstoffchemie sow. verw. Geb. See Bange, F. C.
 Forsén, L., manufacture of hydraulic cements, (P.), B., 909.
 Forshaw, A. See Bone, W. A.
 Forster, M. O., and Rao, K. A. N., isomeric phenylserines, A., 560*.
 unstable modification of isonitrosocamphor, A., 569*.
 d-mannitol from *Gardenia turgida*, A., 599*.
 Forster, R., space-lattice of "permalloy," A., 190.
 structure of colloidal stannic oxide, A., 298.
 Forster, R. B., and Watson, R., arylamine salts of naphthalene-sulphonic acids. IV. Arylamine salts of α -naphthol-4-sulphonic acid, acetylation of naphthionic acid, and arylamine salts of acetylnaphthionic acid, A., 868.
 Forsyth, J. C. See Wright, A. M.
 Forsyth, P. M., [waterproofing of] matches, (P.), B., 204.
 Forsyth, R., and Pyman, F. L., nitration of 2-, 3-, and 4-phenylpyridines, A., 255.
 Fort Wayne Engineering and Manufacturing Co. See Tannehill, V. L.
 Fosse, R., presence of allantoic acid in *Phaseolus vulgaris*, A., 284.
 Fosse, R., and Bossuyt, (Mlle.) V., determination of allantoic acid in the form of xanthylcarbamide, A., 891.
 Fosse, R., and Hieulle, A., allantoic acid in the leaves of *Acer pseudoplatanus*, A., 1116.
 mercury compound of allantoic acid suitable for the identification of this ureide in the green vegetable of *Phaseolus vulgaris*, A., 1175.
 Fosse, R., and Rouchelmann, N., action of liver pulp on ammonium cyanate, A., 585.
 Foster, A. L. See Gavin, M. J.
 Foster, C. E., [disappearing filament] optical pyrometer, (P.), B., 288.
 Foster, G. E. See Fairbourn, A.
 Foster, J. E., pigments for colouring Portland cement mortar, B., 787.
 Foster, J. S., Stark patterns observed in helium, A., 179.

- Foster, L. D., chemistry of New Zealand wheats and flours. II. Hydration capacity of gluten from some local samples, B., 264.
quality of New Zealand wheats and flours, B., 396.
- Foster, L. S. See Kraus, C. A.
- Foster, M. E. See Cameron, A. T.
- Foster, M. F. See Bollmann, H.
- Fouard, E., preparation of metallic colloids, A., 307.
- Fouassier, M. G. J., process for making cheese, (P.), B., 457.
- Fould-Springer, E. See Vereinigte Mautner'sche Presshefe-Fabrik G.m.b.H.
- Foulds, R. P. See Tootal Broadhurst Lee Co., Ltd.
- Foulger, J. H., colorimetric determination of silicon in tissues by Isaacs' method, A., 388.
- Foulke, T. E., and General Electric Co., metal filaments, (P.), B., 529.
- Foundation Oven Corporation. See Wright, W. H.
- Fouque, G., device for maintaining a constant level in water-baths, A., 224.
- Fourment, M., melting of alloys, B., 681.
treatment of ores, wastes, oxides, metals, and other substances, (P.), B., 753.
heat-treatment of metallic pieces, (P.), B., 943.
- Fourneau, E., relation between chemical constitution and therapeutic action, A., 172.
- Fourneau, E., and Ribas, I., condensation of ethylene oxides with alcohols in presence of sulphuric acid as catalyst. I. and II., A., 131, 1052.
- Fourneau, E., and Sabetay, S., preparation of ethyl hydrogen oxalate and ethoxalyl chloride, A., 542.
- Fourneau, E., and Sandulesco, G., preparation and resolution of α -p-nitrophenylbutyric acid, A., 559.
- Fourneau, E., Tréfouel, J., and Établissements Poulenc Frères, manufacture of a symmetrical urca [carbamide] of *m*-aminobenzoyl-*m*-aminomethylbenzoyl-1-naphthylamino-4:6:8-trisulphonate of sodium, (P.), B., 173*.
- Fourneau, E., Tréfouel, J., and Tréfouel, (Mme.) J., 3-nitro-2-aminophenol, A., 555.
- Fourneau, E., Tréfouel, J., Tréfouel, (Mme.) J., and Benoit, (Mlle.) G., isomerides of 3-amino-4-hydroxyphenylarsinic acid and its acetyl derivative (stovarsol), A., 580.
- Fourneau, E., Tréfouel, J., Tréfouel, (Mme.) J., and De Lestrang-Trévisé (Mme.), derivatives of phenylarsinic acid in the treatment of trypanosomiasis. II. Relation between the therapeutic action of aromatic arsenic acids and their constitution, A., 73.
- Fourneau, E. See also Établissements Poulenc Frères.
- Fournier, G., relation between the atomic weight of the isotopic radio-elements and the speed of the α -particles they emit, A., 393.
absorption of β -particles by matter, A., 915.
- Fournier, J. B., and Fritsch-Lang, inertness towards commercial iron, copper, and zinc [?] of liquid hydrogen sulphide, A., 636.
- Fournier, L., Levaditi, C., and Guénot, L., tellurium in the treatment of human syphilis, A., 587.
- Fowler, A., origin of the nebular spectrum, A., 997, 1117.
- Fowler, A., and Freeman, L. J., spectrum of ionised nitrogen (N II), A., 489.
- Fowler, C. H. See Fowler & Co. (Leeds), Ltd., J.
- Fowler, E. J. See Hartley, H. J.
- Fowler, H. W. See Shrum, G. M.
- Fowler, N. R., and Mardles, E. W. J., decomposition of some organic substances by the electric spark, A., 841.
- Fowler, R. H., strong electrolytes in relation to statistical theory, in particular the phase integral of Gibbs, A., 1028.
- Fowler, R. H., and Rideal, E. K., rate of maximum activation by collision for complex molecules with applications to velocities of gas reactions, A., 114.
- Fowler, S., and Edser, E., purification of wool fat, (P.), B., 118*.
preservation of natural products [eggs, etc. with wax], (P.), B., 713.
- Fowler & Co. (Leeds), Ltd., J., and Fowler, C. H., mixing machines, (P.), B., 591.
- Fowles, G., history of witherite, A., 1164.
- Fox, C. E., and Fox, W., filters, (P.), B., 287.
- Fox, C. J. J., and Hall, L., recent developments in the cellulose industry, B., 648.
- Fox, C. S., crystalline nature of the chief constituent of ordinary coal, A., 137, 1050.
- Fox, E. J., and Whittaker, C. W., by-product hydrochloric acid; its use in the extraction of phosphate rock, B., 296.
- Fox, E. J. See also Whittaker, C. W.
- Fox, E. L. See Carpenter, T. M.
- Fox, G. W., Duffendack, O. S., and Barker, E. F., spectrum of carbon dioxide, A., 916.
- Fox, G. W. See also Duffendack, O. S.
- Fox, J. J., cobalt blues and allied colours, B., 50.
- Fox, J. J. See also Robertson, (Sir) R.
- Fox, W. See Fox, C. E.
- Foxgrove Machinery Co., Ltd., and Grover, F., selenium and like cells, (P.), B., 562.
- Foxton, F., and Shutt, W. J., activity of zinc chloride in concentrated solution, A., 1027.
- Fränkel, S., preparation and pharmacological action of triacetylpyrogallol-*o*-carboxylic acid, A., 696.
- Fränkel, S., and David, E., dragon's blood, A., 995.
- Fränkel, S., and Dombacher, P., derivatives of cholesterol, A., 872.
- Fränkel, S., and Friedmann, M., diaminododecanedicarboxylic acid from caseinogen, A., 547.
- Fränkel, S., and Jellinek, C., *Limulus polyphemus*, A., 788.
tubular sheath of *Spirographis Spallanzani*, A., 788.
edible *Holothuria*, A., 788.
so-called carbohydrate group of protein; preparation of glucosaminomannose, A., 862.
- Fränkel, S., and Nussbaum, K., basic choline derivatives, A., 546.
- Fränkel, S. See also Weissenberger, G.
- Fraenkel, W., and Spanner, J., transformation of zinc-aluminium alloys in the solid state, B., 282.
- Fraenkel, W., and Stern, A., gold-palladium-nickel alloys, A., 1030.
- Fraine, W., electro-deposition of tin, B., 447.
- France, A., plant for washing coal and other minerals by means of liquid streams, (P.), B., 356.
[discharge valve for solids from] mineral concentrating plant, (P.), B., 390.
free-discharge separators of plant for washing coal and other minerals by means of liquid streams, B., 437.
washing minerals by means of liquid streams, (P.), B., 449, 583.
- France, A., apparatus for classifying ores, etc., (P.), B., 881.
- France, W. G., kinematographic study of the influence of gelatin on rates of crystal growth and dissolution of copper sulphate, A., 320.
- France, W. G. See also Eckert, T. S.
- Franceschi, F. See Bigiavi, D.
- Francis, F., and Wood, N. E., oxidation of *n*-triacontane, A., 956.
- Francis, M., and Burt, F. P., sorption of ammonia by glass (time, pressure, and temperature relationships), A., 1134.
- Francis, W., and Tideswell, F. V., mode of occurrence of dopplertite: an unusual constituent of peat, B., 929.
- Franck, H. H., and Freitag, C., preparation of calcium cyanide, B., 42.
- Franck, J., and Kuhn, H., absorption and fluorescence spectra of silver iodide molecules, and the nature of their molecular structure, A., 711.
absorption and fluorescence of silver bromide and of silver chloride vapour, A., 1007.
- Franck, J., Kuhn, H., and Rollefson, G., relation between the absorption spectra and molecular structure of the alkali halides in the vapour state, A., 711.
- Franck, J. See also Hogness, T. R.
- François, M., and Lormand, C., micrographic detection of tartaric acid in official preparations, B., 155.
- François, M., and Séguin, L., analysis of insecticides containing finely-divided arsenic, borax, or *p*-dichlorobenzene, B., 974.
- François, (Mlle.) M. T. See André, E.
- Frank, F. See Meyerheim, G.
- Frank, G., decomposition of bast fibres, (P.), B., 184.
- Frank, L., ray-filter glass, (P.), B., 365.
- Frank, L., determination of nicotine in tobacco, B., 796.
- Frank, R. See Borsche, W.
- Frank, T. See Freudenberg, K.
- Franke, A., and Dworzak, R., gravimetric determination of calcium, A., 1161.
- Franke, E. See Chemische Fabrik Grünau Landshoff & Meyer A.-G.
- Franke, W. See Hahn, F. L., and Wieland, Heinrich.

- Frankel, *M.*, thermal disaggregation of gelatin; organic natural substances of colloidal nature, *A.*, 726.
- Frankenberger, *E.*, anomalous dispersion of a silicate solution for wave-lengths between 50 and 60 cm., *A.*, 295.
- Frankforter, *G. B.* See *Harris, E. E.*
- Frankfurter Gas-Gesellschaft, and Schumacher, *E.*, gas burners, (*P.*), *B.*, 211.
- Frankfurter Gas-Gesellschaft, Tillmetz, *F. P.*, and Schumacher, *E.*, production of carburetted gas, (*P.*), *B.*, 34.
- production of carburetted water-gas, (*P.*), *B.*, 34.
- Frankl, *M.*, separation of gas mixtures, (*P.*), *B.*, 512.
- production of synthetic pig iron, (*P.*), *B.*, 519.
- Frankl, *R.*, manufacture of textile threads from viscose solutions, (*P.*), *B.*, 511.
- Frankland, *P. F.*, carbon monoxide poisoning in the absence of hemoglobin, *A.*, 484.
- Franks, *R.* See *Field, B. F.*
- Franquet, *R.* See *Colin, H.*
- Franz, *H.* See *Bothe, W.*
- Franz, *T.*, purification of waste water, (*P.*), *B.*, 798.
- Fraps, *G. S.*, relation of potash removed by crops to active, total, acid-soluble, and acid-insoluble potash of the soil, *B.*, 887.
- Fraser, *A.*, manufacture of goods from india-rubber, (*P.*), *B.*, 306.
- Fraser, *A.*, and Rissik, Fraser & Co., Ltd., manufacture of articles from ebonite and like material, (*P.*), *B.*, 789.
- Fraser, *A.*, Rissik, Fraser & Co., Ltd., and Shaw, *F.*, & Co., Ltd., producing rubber solutions, (*P.*), *B.*, 19.
- Fraser, *J. P.*, refining mineral oils and/or their distillates, (*P.*), *B.*, 645.
- Fraser, *O. B. J.*, Aekerman, *D. E.*, and Sands, *J. W.*, controllable variables in the submerged corrosion of metals, *B.*, 414.
- Fraser, *O. B. J.* See also *International Nickel Co.*
- Fraser, *R. G. J.*, effective cross-section of the oriented hydrogen atom, *A.*, 399.
- Fraser, *R. G. J.* See also *Thomson, G. P.*
- Frazer, *G.* See *P. R. v. d. R. Copeman.*
- Frayne, *J. G.*, and Jarvis, *C. W.*, stages in the excitation of the spectrum of indium, *A.*, 602.
- Frazer, *J. C. W.*, oxidising catalyst, (*P.*), *B.*, 11.
- Frazer, *J. C. W.*, Lovelace, *B. F.*, and Taylor, *R. K.*, vapour pressures of potassium nitrate solutions, *A.*, 207.
- Frazer, *J. C. W.*, Patrick, *W. A.*, and Smith, *H. E.*, thickness of adsorbed vapour films, *A.*, 722.
- Frazer, *J. C. W.* See also *Patrick, W. A.*
- Frazier, *F. A.*, and Frazier Co., *F. A.*, preparation of a sodium-sulphur compound, (*P.*), *B.*, 188.
- Frazier, *W. R.* See *Scott, A. F.*
- Frazier Co., *F. A.* See *Frazier, F. A.*
- Fred, *E. B.* See *Baldwin, I. L.*, *Hastings, E. G.*, *Marten, E. A.*, *Peterson, W. H.*, and *Wilson, P. W.*
- Fredenhagen, *K.*, factors determining the dissolution of electrolytes and their condition in solution. I. and II., *A.*, 936.
- Fredenhagen, *K.*, and Cadenbach, *G.*, combination of potassium with carbon, *A.*, 218.
- Frederick, *E. L.* See *Gibbs, H. D.*
- Frederick, *R. C.*, simple colorimeter, *A.*, 849.
- modification of the Haldane general air analysis apparatus, *B.*, 600.
- Hempel gas analysis apparatus without absorption bulbs: its use in the examination of commercial oxygen, *B.*, 601.
- Frederickson, *W. R.*, and Watson, *W. W.*, sodium and potassium absorption bands, *A.*, 1122.
- Fredrikson, *H. M.*, alloy [for electrical contacts], (*P.*), *B.*, 81.
- Fredriksson, *J. F.*, and Kalbfleisch Corporation, preparation of satin white, (*P.*), *B.*, 609.
- Freed, *M. L.*, and United States, manufacture of a highly refractory material, (*P.*), *B.*, 878.
- Fréedericksz, *V.*, and Rzepiewa, *A.*, experiment on and theory of the nature of anisotropic liquids, *A.*, 503.
- Freeland, *C. L.*, condensing, treating, and washing hydrocarbon vapours, (*P.*), *B.*, 673.
- Freeman, *H.*, and Canada Carbide Co., production of sodium sulphide, (*P.*), *B.*, 107.
- manufacture of alkali sulphides, (*P.*), *B.*, 778*.
- Freeman, *I. M.*, continuous spectrum of hydrogen, *A.*, 81.
- Freeman, *L. J.* See *Fowler, A.*
- Freeman, *R. G. jun.*, and Miller, *E. G. jun.*, extraction of total ether-soluble material from faeces, *A.*, 169.
- Freeport Sulphur Co. See *Lundy, W. T.*
- Freestone, *J. T.* See *Walker, W. & F., Ltd.*
- Frei, *W.*, and Lienhard, *H.*, hydrogen-ion concentration of calcium chloride serum from normal and pathological cow's milk, *A.*, 70.
- Freiman, *A.* See *Sugden, S.*
- Freise, *F. W.*, and American Cyanamid Co., fertiliser composition, (*P.*), *B.*, 23.
- Freise, *F. W.* See also *Barsky, G.*
- Freitag, *C.* See *Franck, H. H.*
- Fremel, *A. B.*, determination of sugar and non-sugars in sugar beet, *B.*, 711.
- Fremont-Smith, *F.*, and Dailey, *M. E.*, distribution of chlorides and proteins between blood plasma and synovial fluid, *A.*, 69.
- French, *A.* See *Sullivan, F. W., jun.*
- French, *H. E.* See *Gaddum, L. W.*
- French, *H. J.*, comparison of the alloying elements chromium, nickel, molybdenum, and vanadium in structural steels, *B.*, 724.
- French, *H. S.* See *Aclty, H. E.*
- French, *J. W.*, polishing of surfaces, *A.*, 510.
- glass annealing, *B.*, 409.
- French, *M. M.*, and Harder, *C. M.*, glazes of low fusibility containing rutile, *B.*, 678.
- French, *R. B.* See *Forbes, E. B.*
- French, *R. W.*, chemical structure as affecting the staining and therapeutic properties of dyes, *A.*, 281.
- extinction coefficients of dyes, *A.*, 1213.
- French, *R. W.* See also *Scanlan, J. T.*
- French, *S. J.* See *Kahlenberg, L.*
- Frenkel, *E. W.*, and Brust, *A. J. H.*, manufacture of priming material for coating porous surfaces, (*P.*), *B.*, 333.
- Frerichs, *R.*, intensities of multiplets, *A.*, 82.
- Frers, *J. N.*, constitution of solid electrolytes. II. Cuprous chloride, *A.*, 521.
- Frese, *E.* See *Auwers, K. von.*
- Fresenius, *L.*, Eichler, *A.*, and Lederer, *H.*, catalytic properties of mineral waters. I. Behaviour of the water of Wiesbaden hot springs towards hydrogen peroxide solutions, *A.*, 320.
- Fresenius, *L.*, and Lederer, *H.*, catalytic properties of mineral waters. II. The benzidine reaction of the Wiesbaden hot spring, *A.*, 1038.
- Fresenius, *L.* See also *Lemmermann, O.*
- Freud, *J.* See *Silberstein, F.*
- Freude, *F.*, electric smelting of tin ores, *B.*, 657.
- Freudenberg, *H.* See *Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.*
- Freudenberg, *K.*, Blümmel, *F.*, and Frank, *T.*, tannase. II., *A.*, 699.
- Freudenberg, *K.*, and Frank, *T.*, tannins. XXIV. Chebulic acid. III., *A.*, 404.
- Freudenberg, *K.*, and Harder, *M.*, lignin. II. Formaldehyde as product of the fission of lignin, *A.*, 342.
- tannins and related substances. XXIII. Syntheses of catechin derivatives, *A.*, 251.
- Freudenberg, *K.*, and Kammüller, *A.*, tannins and related substances. XXII. Passage from the flavono to the catechin series, *A.*, 251.
- Freudenberg, *K.*, Noë, *A.*, and Knopf, *E.*, acetone sugars. XI. Synthesis of a β -glucosidogalactose, *A.*, 230.
- Freudenberg, *K.*, and Raschig, *K.*, acetone sugars. XII. Transformation of *d*-galactose into *d*-fucose [rhodose], *A.*, 858.
- Freudenberg, *K.*, and Wolf, *Anton*, acetone sugars. X. γ -Thiogluucose, *A.*, 230.
- Freund, *M.*, oxidation of petrol by air, *B.*, 384.
- corrosion in petroleum distillation plant. II., *B.*, 642.
- Freund, *R.*, works viscosimeter, *B.*, 799.
- manufacture of benzaldehyde and benzoic acid on a large scale, *B.*, 923.
- Freund, *V.*, working up the volatile products of wood distillation, (*P.*), *B.*, 626.
- fractional distillation, (*P.*), *B.*, 696.
- Freundlich, *H.*, electrification at interfaces, *A.*, 108*.
- Freundlich, *H.*, and Abramson, *H. A.*, cataphoretic transference velocities of large particles in sols and gels, *A.*, 931.
- Freundlich, *H.*, and Aschenbrenner, *M.*, lyotropic properties of the fluorine ion, *A.*, 202.
- Freundlich, *H.*, and Kroch, *H.*, mechanical coagulation of cupric oxide [and FeO(OH)] sols, *A.*, 18.
- Freundlich, *H.*, and Loeb, *L. F.*, sodium urate as a colloidal electrolyte, *A.*, 308.
- Freundlich, *H.*, and Nitze, *H.*, viscosity and flow-elasticity of starch paste, *A.*, 413.

- Freundlich, H., Patscheke, G., and Zoher, H., passivity of iron mirrors. I. and II., A., 1037, 1149.
- Freundlich, H., and Rawitzer, W., influence of metals on thixotropic sols and gels, A., 310.
- Freundlich, H. See also Abramson, H. A.
- Frey, C. N. See Hildebrandt, F. M.
- Frey, F. E., and Yant, W. P., fractionation analysis of gas from the low-temperature carbonisation of coal, B., 177.
- hydrocarbons in gas from the low-temperature carbonisation of coal, B., 546.
- separation of individual saturated and unsaturated hydrocarbons in coal gas by fractional distillation, B., 546.
- Froy, K. See Staudinger, H.
- Frey, R. W., and Hann, R. M., comparison of boric and hydrochloric acids in the determination of nitrogen in leather [report of Committee of American Leather Chemists' Association], B., 54.
- Frey, R. W., and Leinbach, L. R., badan, B., 636.
- Freyssingas, R. P., Weill, R. E. E., and Drege, M. H., dyeing of silks, viscose silk, and acetate silk, (P.), B., 699.
- Friauf, J. B., crystal structure of magnesium dizincide, A., 190.
- Friberg, S., dispersion of light in gases within the ultra-violet spectrum; [refractivity of methane and ammonia], A., 499.
- Frick, F. F. See Laist, F., and Larison, E. L.
- Fricke, A. See Krauss, F.
- Fricke, R. [with Gottfried, C., Shaliks, W., Münchmeyer, A., and Engelhardt, F.], crystallisation of some hydroxides, A., 1043.
- Fricke, R., and Rode, O., complex chemical behaviour of beryllium. V., A., 829.
- Fricke, R., and Suwelack, O., Liesegang system of "rhythmic" precipitates, A., 310.
- Friderich, L., Rodenhauser, W., and Siemens & Halske Akt.-Ges., method for decarbonising highly carbonaceous ferrochromium, (P.), B., 81*.
- Friedel, G., phenomena associated with the hydration of myelin, A., 935.
- Friedemann, T. E., action of alkali and hydrogen peroxide on glyoxals, A., 648.
- Friedemann, T. E., Cotonio, M., and Shaffer, P. A., determination of lactic acid, A., 800.
- Friedemann, W. G., Napier grass, B., 918.
- Friederich, E., electrolytic conductivity of solids, A., 113.
- Friederich, E., and Meyer, W., electronic conductivity of solid halides, A., 114.
- Friedlander, H., manufacture of an [insulating] composition, (P.), B., 811.
- Friedmann, M. See Fränkel, S.
- Friedmann, W., dehydrogenation [of tar products, etc.] by means of sulphur, B., 807.
- Friedolsheim, A. von. See Reihlen, H.
- Friedrich, A., micro-determination of methoxyl, A., 475.
- lignin. III. Tautomeric forms in soluble lignin, A., 861.
- Friedrich, H., and Rajtora, W., extraction of the sugar present in [beet] molasses and vinasses, (P.), B., 538.
- Friedrich, Hermann. See Hüchel, W.
- Friedrich, K., production of a cold glaze upon building material, such as concrete, sandstone, clay, brickwork, etc., (P.), B., 751*.
- Friedrich, M. See Jensen, H.
- Friedrich, W., and General Electric Co., lead-cadmium alloys, (P.), B., 881*.
- Friedrich, W., and Goldhaber, G., azimuthal intensity of scattered X-rays, A., 1000.
- Friedrichs, F., simple automatic pipette, A., 1048.
- Friend, J. N., protection of steel with paint; a standard paint, B., 608.
- third report on the relative corrodibilities of various commercial forms of iron and steel, B., 843.
- Friend, J. N., and Thorneycroft, W. E., examination of a fifteenth-century "brass," B., 279.
- silver contents of Roman lead from Folkestone and Richboro' Castle, B., 281.
- Fries, J. A. See Forbes, E. B.
- Fries, K., dicyclic compounds and their analogy with naphthalene. III., A., 778.
- Friese, H., and Hess, K., cellulose. XXVIII. Acetolysis of cellulose. III. Formation of cellobiose, A., 861.
- Friese, H. See also Hess, K.
- Frieser, H., chemical sensitisation of silver iodide-gelatin plates, B., 541.
- Friess, J. See Hugel.
- Friman, E., precision measurements in the L-series of the elements tungsten to uranium, A., 83.
- Frischer, M. See Margosches, B. M.
- Fritsch-Lang. See Fournier, J. B.
- Fritz, H. E., rubber as a solution of corrosion and abrasion problems, B., 193.
- Fritz, H. E., and Clark, J. H., jun., soft rubber filter-press plates and frames, B., 863.
- Fritz, R. D., and Goodrich Co., B. F., apparatus for vulcanising under fluid pressure, (P.), B., 372.
- Fritz, R. D. See also Hoover, W. C.
- Fritzmann, E., osmium; distillation of osmium tetroxide from aqueous solution, the oxidation of osmium and its relation to the regeneration of the tetroxide. I., A., 742.
- Fritzsche, H. See Society of Chemical Industry in Basle.
- Frodl, F., iodometric determination of phosphoric acid in plant products and soils, B., 22.
- Fröhlich, K. W. See Danneel, H.
- Fröhlich, O. See Naaml. Vennoten. Silica en Ovenbouw Mij.
- Froschl, N., and Bomberg, P., preparation of protocatechu-aldehyde and vanillin, A., 1188.
- Frohning, W. O., increasing the coagulating point of milk, (P.), B., 123.
- Froidevaux, J., specific characters of regenerated preserved peas, B., 91.
- Frolich, P. K. See Haslam, R. T.
- Fromageot, C., conditions controlling oxidation of organic molecules. I., A., 1148.
- Fromm, A., vinylpyrocatechol monomethyl ether [4-hydroxy-3-methoxystyrene] from beechwood tar, A., 968.
- Fromm, E., cyclic thioketones, A., 1189.
- Fromm, F., Fanti, P., and Leibsohn, E., diphenylthiophens, A., 1198.
- Frommelt, J. See Duboux, M.
- Frommer, M. See Hahn, F. L.
- Fromont, G., plates for electric accumulators, (P.), B., 914.
- Fron, G., distinguishing green from old wood, B., 780.
- Frost, C. W. See Ledbury, W.
- Frost, J. G. G., and National Smelting Co., process of treating aluminium dross, (P.), B., 194.
- recovery of aluminium from oily metallic mixtures, etc., (P.), B., 913.
- Frouin, A., and Guillaumie, M., mineral nutrition of *Bacillus tuberculosis*, A., 281.
- carbon nutrition of *Bacillus tuberculosis*, A., 281.
- Frova, E. See Losana, L.
- Frowein, F., manuring trials with potassium nitrate, B., 637.
- Frowein, F., and Mühlendahl, E. von, solutions of the bi-ternary mixture of the chlorides and nitrates of sodium, potassium, and magnesium, A., 22.
- Frowein, F. See also Wolff & Co.
- Früh, C., machine for wet treatment of textile fibres, (P.), B., 248.
- Frumkin, A., and Donde, A., hydrolytic adsorption by spongy platinum and charcoal, A., 1021.
- Frumkin, A., and Obrutscheva, A., hydrolytic adsorption on platinum-black, A., 106.
- adsorption phenomena of silver iodide, A., 617.
- Fruth, H. F., and Duffendack, O. S., low-voltage arcs in iodine, A., 1118.
- Fry, C. E., and Wilson Co., H. A., thermostatic metal, (P.), B., 912.
- Fry, H. S., and Cameron, J. L., reducing action of sodium methoxide, A., 454.
- Fry Glass Co., H. C. See Brenner, R. F.
- Fryer, F. G., reducing, grinding, or refining apparatus for chocolate, cocoa, etc., (P.), B., 858.
- Fuchs, aluminium alloy "Aldrey," B., 846.
- Fuchs, J. See Böhrer Gebrüder & Co., A.-G.
- Fuchs, K. See Margosches, B. M.
- Fuchs, O., existence of some azetotropic mixtures, A., 617.
- [mechanism of the formation of diphenyl from benzene], A., 866.
- Fuchs, O. See also Roka, K.
- Fuchs, W., theory of the formation of lignin, A., 283.
- thermal fission of pine lignin. I. Silver distillation of technical Willstätter lignin, A., 546.

- Fuchs, W., thermal fission of pine lignin. II. Treatment of technical Willstätter lignin with steam, A., 650.
present position of the lignin theory of [the origin of] coal, A., 748.
unsaturated sugar complexes in wood, B., 405.
pine wood without lignin reactions, B., 598.
action of bacteria on coal, B., 929.
- Fuchs, W., and Honsig, E., [lignin], A., 137.
- Fuchs, W., and Landsmann, G., walchowito, A., 225.
- Fuchs, W., and Leopold, H., humic acids. I. Methylation and treatment with ammonia of some humic acid samples, B., 315.
humic acids. II. Action of thionyl chloride, of bromine, and of chlorine dioxide on some humic acid samples, B., 377.
- Fuchs, W., and Nizzel, F., tautomerism of phenols. IX. Formation of naphthacarbazoles from naphthols, A., 257.
tautomerism of phenols. X. Phenylhydrazine and naphthols of the α -series, A., 1184.
- Fuchs, W., and Pirak, H., tautomerism of phenols. VII. 1:4-Dihydroxynaphthalene and 4-amino- α -naphthol. VIII. 1:2-Dihydroxynaphthalene, A., 53.
- Fuchs, W. See also Fischer, F., and Hönig, M.
- Fudge, J. F. See Parker, F. W.
- Füchtbauer, C., and Meier, H., intensity-ratio for the doublets in the principal series of the alkali metals, A., 178.
- Füchtbauer, C. See also Weizel, W.
- Fühner, H., and De Dios Fernandez, J., purgative action of hydroxyanthraquinones, A., 900.
- Fürst, W. See Kindler, K.
- Fürth, A. See Werschen-Weissenfelder Braunkohlen A.-G.
- Fürth, M. See Feigl, F.
- Fürth, O., and Deutschberger, O., arginine content of some proteins and of normal organs and organs showing amyloid degeneration, A., 894.
- Fürth, R., adsorption and diffusion in the electric field, A., 509*.
colouring matters. III. Determination of the electric charge of dyes. IV. Determination of the degree of dispersion of solutions of dyes, A., 512.
absolute determination of the dielectric constant of water by the ellipsoid method, A., 919.
diffusion in a gravitational field, A., 1136.
- Fürth, R., and Ullmann, E., colouring matters. V. Degree of dispersion of solutions of dyes, A., 512.
- Fues, E., duration of resonance phenomenon, A., 805.
- Fuji-hara, M. See Yonemura, S.
- Fuji-hara, T., paradox of corrosion and protective film [on iron] theory, B., 967.
- Fujii, I., and Takai, K., hyperglycemia and glycosuria in the dog under ether anaesthesia, A., 73.
- Fujita, N. See Takamine, J., and Takamine, J., jun.
- Fujita, Y. See Ikeda, T.
- Fukunaga, M., Raschig continuous tar distillation plant of the Nippon Seikoshō, B., 807.
- Fukushima, I., Takamatsu, Y., and Watanabe, I., viscose silk. IV. Analysis of viscose, B., 962.
- Fukushima, K., reversible haemolysis, A., 168.
- Fulcher, G. S., and Corning Glass Works, cast refractory article; cast refractory product, (P.), B., 253.
- Fulde, A. See Koenigs, E.
- Fuller, E. A., artificial malt product suitable for use in brewing and bread-making, (P.), B., 264.
- Fuller, H. C., medicinal product, (P.), B., 734.
- Fuller, J. W., ageing or seasoning cement, (P.), B., 77.
process for ageing or seasoning cement, (P.), B., 77*.
- Fuller, T. S., corrosion of non-ferrous metals and alloys, A., 1037.
- Fuller, T. S., and General Electric Co., nickel alloy, (P.), B., 682.
resistance alloy, (P.), B., 881.
- Fuller's United Electric Works, Ltd., and Whaithe, S. C., [separators for the plates of] electric storage batteries or electric accumulators, (P.), B., 226.
[electrode-supporting sheets for] electric storage batteries or electric accumulators, (P.), B., 371.
- Fullerton, B. See Heyl, F. W.
- Fullerton, Hodgart, & Barclay, Ltd., and Aston, J. C., separators, (P.), B., 128.
- Fulmer, E. I., relation between p_H and the reaction of aqueous solutions at various temperatures, A., 516.
- Fulton, J. D. See Patterson, T. S.
- Fulton, S. M. See British Celanese, Ltd.
- Fulton, W. B., heating and drying apparatus [for paper or textiles], (P.), B., 474.
- Fulton Brick Works. See Reams, J. A.
- Fulweiler, W. H., Jordan, C. W., and U.G.I. Contracting Co., purification of [coal] gas, (P.), B., 770.
- Fulweiler, W. H. See also Barnes, J.
- Funck, A. See Spitalsky, E.
- Funcke, F. See I. G. Farbenind. A.-G.
- Funk, C., dissolution of insulin into two new active substances, A., 594.
- Funk, C., Dubin, H. E., and Metz Laboratories, Inc., H. A., manufacture of a highly-concentrated substance rich in antirachitic and antixerophilic vitamins from cod-liver oil, (P.), B., 732.
- Funk, C. See also Kolodziejska, S.
- Funk, H., and Binder, F., salts of hydrofluoboric acid. II., A., 219.
- Funke, A. See Gault, H.
- Funke, K. See Zinke, A.
- Funnell, W. S., and Hoover, G. I., all-glass gas-circulating apparatus, A., 850.
- Fuoss, R. M. See Forbes, G. S., and Lange, E.
- Furbo, N. C., extraction of volatile odorous constituents of oils, especially edible oils, (P.), B., 795.
- Furihata, M. See Nagai, Y.
- Furness, W. H., and Cellocilk Co., apparatus for filtering, (P.), B., 896.
- Fursikov, D. S. See Buikov, K. M.
- Furter, M. See Kuhn, R.
- Furusawa, K., and Kerridge, P. M. T., p_H of muscles of marine animals, A., 479.
hydrogen-ion concentration of muscles of the cat, A., 694.
- Fuseya, G., and Nagano, M., addition agents in electro-deposition, B., 632.
- Fuson, R. C., coupling action of the Grignard reagent. III. Formation of $\alpha\beta$ -triphenylpropane and similar hydrocarbons in coupling reactions of benzyl halides, A., 46.
- Fuss, laural, B., 168.
- Fuss, V., and Vereinigte Aluminiumwerke Akt.-Ges., aluminium-[-copper-silicon] alloy, (P.), B., 528*.
- Fusselbaugh, R. R., variation of soda and boric oxide in ground-coat enamels, B., 442.
- Futagami, T. See Nagaoka, H.
- Fyfe, A. W. See Perkin, W. H.
- Fyleman, M. E., separating mineral oils or the like from sand or rock, (P.), B., 182*.

G.

- Gabbe, E., complex carbohydrates in blood. I. Effect of taka-diastase and of emulsin on reducing power of blood, A., 893.
- Gabel, G., reaction between ethylene oxide and methyl- and ethyl-anilines, A., 962.
action of trimethylethylene oxide on benzylamine, A., 1179.
- Gabel, W., and Schmidegg, O., triazoles. V. Phenyltrimethyl-triazole derivatives, A., 468.
- Gabiano, P., alkali cuprotartrates, A., 543.
- Gabiano, P. See also De Malleman, R.
- Gabrieli, R. See Covello, M.
- Gad, G. See Lesser, R.
- Gaddum, J. H., determination of phosphorus in blood, A., 68.
- Gaddum, L. W., and French, H. E., electrolysis of Grignard solutions, A., 756.
- Gaddum, L. W. See also Dufford, R. T.
- Gadenne, E. See Scholder, R.
- Gaebler, O. H., and Keltch, A. K., metabolism of hydantoin and carbamido-acids, A., 72.
- Gaedertz, A. See Wittgenstein, A.
- Gädke, W. See Diels, O.
- Gaertner, O., discontinuities in the absorption of X-rays by aluminium (the so-called J-phenomenon), A., 911.
- Gärtner, R. H., removal of tetranitromethane from [technical] trinitrotoluene, (P.), B., 574*.
- Gaertner, W. See Auwers, K. von.
- Gaffron, H., photo-oxidation by means of fluorescent pigments, A., 67.
oxygen transmission by chlorophyll and the photochemical equivalent law, A., 428.

- Gaffron, H., photochemical formation of peroxides during oxygen transport by chlorophyll, A., 1225.
- Gagarina, E., determination of catalase in blood and animal tissues, A., 1103.
- Gail, G. E., and Seitz, A., compound to solder aluminium, (P.), B., 969.
- Gail, J. B., and Adam, N., process and apparatus for the removal of oil from condensation waters, (P.), B., 270*.
- Gaillard, A., treating superphosphates, (P.), B., 748.
- Gailliot, P. See Dufraisse, C., and Valeur, A.
- Gainsborough, H. See Gardner, J. A.
- Galardini, A. See Baglioni, S.
- Galatà, G., solvent action of carbon disulphide on biliary calculi *in vivo*, A., 173.
- Galatis, L., *p*-methylanilino-phenyl acetate, A., 762.
- Galecki, A., and Jerke, G., influence of temperature on the catalytic decomposition of hydrogen peroxide, A., 632.
- Galehr, O., amylase content of dog saliva and the influence of diet, A., 1104.
- Galitzérówna, (Mlle.) H. See Dziewoński, K.
- Gall, H., and Lehmann, G., preparation of salts of bivalent ruthenium, A., 123.
- Gall, H., and Mengdehl, H., addition of nitrosyl chloride to metallic salts, A., 219.
- Gall, H. See also Manchot, W.
- Gall, J. See Steinkopf, W.
- Gallaher, W. U., dissolved oxygen changes during filtration [of water], B., 430.
- Gallaugh, A. F. See Seyer, W. F.
- Gallie, G., Porritt, B. D., and Research Association of British Rubber & Tyre Manufacturers, method and apparatus for removing large-sized particles and aggregates from certain finely-divided powders, (P.), B., 32.
- Gallo, G., reduction of iron ores by hydrogen, B., 278.
- behaviour of iron pyrites with hydrogen, B., 279.
- analysis of cements, B., 780.
- Gallois, A., apparatus for the purification of graphite by froth flotation, (P.), B., 866.
- Gallup, W. D., heat and moisture as factors in the destruction of gossypol in cottonseed products, B., 539.
- gossypol content and chemical composition of cottonseeds during certain periods of development, B., 883.
- Galotti, H. See Hofmann, K. A.
- Galtsoff, P. S., and Pertsoff, V., physico-chemical properties of dissociated sponge cells, A., 71.
- Galvin, A. F., preparation for sizing textile fabrics, (P.), B., 746.
- Gambarjan, S., and Cialician, O., decomposition of *O*-benzoyl-dibenzylhydroxylamine, A., 350.
- Gambel, C. J., refining unwashed sugar; refining sugar with "Carbox," (P.), B., 234.
- Gamble, C. J. See Starr, I., jun.
- Gammay, H., production of camphene from pinene hydrochloride, (P.), B., 156.
- process for the production of camphor from isoborneol, (P.), B., 173*.
- Gamov, G. See Prokofiev, V. K.
- Gams, A. See Society of Chemical Industry in Basle.
- Gane, G., and Metta, (Mme.) A., simple analysis of crude Rumanian petroleum and of the petroleum fractions separated by filtration, B., 465.
- Gane, G., and Zilisteanu-Gheorghiu, (Mrs.) M., unsaturated hydrocarbons in oils obtained from petroleum, B., 594.
- Ganesan, A. S., "H and K" bands of carbon, A., 89.
- Ganguly, P. B., influence of hydrolysis of gelatin on gold numbers and peptisation of other substances, A., 19.
- diffusion of aqueous sodium silicate solutions across semi-permeable membranes, A., 415.
- formation of Liesegang rings, A., 514.
- Gann, J. A., and Winston, A. W., magnesium and its alloys, B., 879.
- Gann, J. A. See also Dow, H. H.
- Gannon, J. J., Mahle, L. W., Wells, F. B., and Ohio Boxboard Co., paper making, (P.), B., 71.
- Gans, R., dielectric constant and the wave-mechanics, A., 610.
- Ganssen, R., extraction of ammonium aluminium sulphate from aluminium sulphate solutions containing ferric compounds, (P.), B., 252*.
- Ganssen, R., and Götz, G., manufacture of dyes, (P.), B., 387.
- Ganssen, R., Pfeiffer, H., Laage, A., Haller, H., Utescher, K., and Trénel, M., determination of the reaction of soil, B., 728.
- Gantschev, N. See Balarev, D.
- Gapon, E. N., calculation of atomic diameters from photo-electric data, A., 923.
- Gapon, E. N., molecular states of liquids, A., 404.
- infra-red absorption of fluids, A., 1007.
- diffusion, A., 1132.
- Gapon, E. N., and Harkes, I. S., hydration of ions, A., 922.
- Gapon, E. N., and Muchin, G. E., diffusion of non-electrolytes, A., 1132.
- Garard, I. D., and Colt, (Miss) F. M., preparation and properties of colloidal and monoclinic sulphur in organic liquids, A., 410.
- Garbsch, P. See Wieland, Heinrich.
- Gard, E. W. See Rial, W. D.
- Gard, J. S. F., heat insulation, B., 351.
- Gardiner, R. F. See Walton, G. P.
- Gardner, C. E., apparatus for grinding or comminuting rubber or other materials, (P.), B., 689.
- Gardner, D., manufacture of paints, (P.), B., 229*.
- Gardner, H., and Ford Motor Co., method of [nickel] plating, (P.), B., 820.
- Gardner, H. A., physical properties of some grades of whiting; keeping properties and mobility of paints, B., 418.
- toxic compounds for anti-fouling compositions, B., 418.
- physical properties of films prepared from nitrocellulose of low viscosity, and the effect of concentration upon mobility, B., 418.
- possible use for hydrocellulose in paints and in lacquers, B., 418.
- painting cement and plaster: problems involved in, and the results of, super-accelerated alkali-water tests, B., 451.
- white paint tests on zinc chloride and creosote-treated woods, B., 585.
- colour number of dry pigments, and experiments on the selective adsorption of various pigments and liquids, B., 586.
- protective coatings for duralumin and similar light-weight alloys for exposed construction, B., 683.
- painting galvanised iron conductor pipes: accelerated corrosion test, B., 683.
- paint tests on wood, B., 851.
- Gardner, H. A., and Heuckeroth, A. W. van, further applications of a mobilometer, B., 511.
- laboratory experiments on ethylene and propylene glycol ethers; their use in "odourless" brushing lacquers, B., 684.
- durability of resins and plasticisers in lacquers, B., 851.
- Gardner, H. A., and Levy, S., darkening of shellac solutions: effect of metals and solvents, B., 684.
- Gardner, H. A., and Sward, G. G., uniform varnish films for exposure tests, B., 822.
- Gardner, H. A. See also Sward, G. G.
- Gardner, J. A., and Gainsborough, H., cholesterol content of normal human plasma. I., A., 270.
- cholesterol content of normal human plasma. II. Attraction of the proteins of plasma for sterols, A., 271.
- Gardner, J. H., alkaline oxidation of α -nitronaphthalene, A., 877.
- Gardner, W., reduction of finely-divided material, (P.), B., 287.
- Gardner, W. A., decomposition of toxins by soil organisms, A., 593.
- Garelli, F., and Monath, E., cryoscopic determinations of the solubility of gases, A., 303.
- Garey, R. M. See Henwood, A.
- Gargiulo, R. See Migliacci, D.
- Garino, M., and Benvenuto, G., decolorising carbons and their action on molasses, B., 685.
- Garino, M., and Boidi, S., action of carbonyl chloride on pinene, A., 670.
- Garino, M., and Bornate, G., [non-]separation of optical antipodes of chlorobromopyruvic acid, A., 645.
- Garino, M., and Dagnino, A., pyruvic guaneide, A., 652.
- Garino, M., and Teofili, E., chlorobromiodomethane, A., 130.
- Garland, C. E. See Bartlett, J. F.
- Garland, C. S., and Beacham, T. E., filtration of fluids [lubricating oil], (P.), B., 35.
- Garland, C. S., Beacham, T. E., and Pickard, J. A., filtering apparatus [for lubricating oil], (P.), B., 695.
- Garner, F. H. See Faragher, W. F.
- Garner, H. H., metallic filter for air cleaner, (P.), B., 160.
- Garner, J. B., Miller, R. W., Shaner, G. A., and Standard Development Co., purifying [coal] gases, (P.), B., 273.
- Garner, J. P., [lampblack from natural] gas, (P.), B., 436.
- Garner, W., microscopical tests for certain naphthalenesulphonic acids, B., 101.

- Garner, *W. E.*, adsorption on solids, A., 106*.
- Garner, *W. E.*, and Johnson, *C. H.*, effect of water on the infra-red emission from the flame and explosion of carbon monoxide and oxygen, A., 184.
- Garner, *W. E.*, and McKie, *D.*, heat of adsorption of oxygen on charcoal. II., A., 1134.
- Garner, *W. E.*, McKie, *D.*, and Knight, *B. C. J. G.*, area of the internal surface of charcoal as determined by the adsorption of the normal aliphatic alcohols from aqueous solution, A., 617.
- Garner, *W. E.*, and Rushbrooke, *J. E.*, m. p. and heats of crystallisation of homologous series. III. Myristic acid derivatives, A., 718.
- Garnett, *H. J.* See Smith, *W. S.*
- Garre, *B.*, reactions of metals with solid salts on heating, A., 430.
- hardness of compressed powdered metals after heating, A., 504.
- reactions in the solid state, A., 822.
- action of strontium oxide and lead oxide on aluminosilicates, A., 842.
- changes in solid crystalline organic substances on heating, A., 938.
- influence of water on the solidity of powdered substances after heating, A., 1135.
- changes in the solubility and hardness of twisted and bent iron, B., 581.
- Garrett, *M. W.*, experiments to test the possibility of transmutation by electronic bombardment, A., 393.
- Garrick, *F. J.*, vapour pressure of diphenyl and aniline, A., 1019.
- Garrison, *A. D.* See Weiser, *H. B.*
- Garrow, *J. R.*, preparation of organic materials or aggregates for use with cements, (P.), B., 939.
- Garry, *R. C.*, static effort and the excretion of uric acid, A., 375.
- Gartung, *W. H.*, and Adkins, *H.*, affinity, reactivity, and structure in acetal formation. II., A., 1172.
- Garvey, *B. S.* See Conant, *J. B.*
- Gas Light & Coke Co. See Bone, *W. A.*
- Gas Research Co., method and apparatus for transferring heat, (P.), B., 240.
- Gas Research Co. See also Smith, *H. F.*
- Gaschler, *A.*, method of artificially producing [increasing the radioactivity of] radioactive materials, (P.), B., 882.
- Gasoline Products Co. See Cross, *R.*, Cross, *W. M.*, and Snelling, *W. O.*
- Gasoline Recovery Corporation. See Veress, *C. L.*
- Gasopoulos, *J.*, essential oils from Greece, B., 505.
- Gaspar y Arnal, *T.*, volumetric determination of calcium and ferrocyanide ions, A., 846.
- Gassner, *L.*, combined cholesterol of the brain, A., 371.
- Gastaldi, *C.*, combustion furnace with electric heating, A., 334.
- benzoylformhydroxamic acid oximes. XIV., A., 1185.
- Gat, *J. D.*, normality of steel, B., 967.
- Gates, *S. F.* See Egerton, *A.*
- Gates, *T. P.* See Watson, *J. C.*
- Gatewood, *E. S.*, and Johnson, *T. B.*, thioamides. VI. Some amino-acid derivatives containing sulphur in thioamide combination, A., 62.
- Gathm's Research Corporation. See Madorsky, *S. L.*
- Gatto, *M.*, treatment of sulphur ores in cell furnaces, B., 652.
- Gaubert, *P.*, dehydration and hydration of platinocyanides, A., 312.
- formation in the unstable state of two hydrates of magnesium platinocyanide, A., 324.
- Gaudry, *T. G.*, and Hoolahan, *A.*, preparation of paint filler, (P.), B., 50.
- Ganger, *A. W.*, Storch, *H. H.*, and Burnham Chemical Co., decreasing the rate of crystallisation of borax from brine, (P.), B., 409.
- Gault, *H.*, and Funke, *A.*, ethyl benzoylpyruvate, A., 561.
- Gaunt, *J. A.*, stopping power of hydrogen atoms for α -particles according to the new quantum theory, A., 606.
- Gaunt, *R.* See Jameson, *J.*
- Gaus, *R.*, Eliçabe, *A.*, and Weinstock, *Z.*, how do acids attack metals? A., 1149.
- Gavardovskaja, *M. V.* See Iljinski, *M. A.*, and Zelinski, *N. D.*
- Gavin, *M. J.*, and Foster, *A. L.*, apparatus for vacuum distillation of lubricating and heavy petroleum oils, B., 930.
- Gaviola, *E.*, rate of decay of fluorescence of solutions of dyes, A., 7.
- influence of temperature and concentration on the rate of decay of the fluorescence of dyes, A., 712.
- measurement of the duration of fluorescence, A., 712.
- Gaviola, *E.*, and Pringsheim, *P.*, transition of fluorescence into phosphorescence, A., 810.
- Gavrilov, *N. I.*, Stachejeva, *E.*, Titova, *A.*, and Evergetova, *N.*, dynamics of autoclave hydrolysis of proteins by dilute acids, A., 582.
- Gavrilov, *N. I.* See also Zelinski, *N. D.*
- Gawthrop, *D. B.* See Perrott, *G. St. J.*
- Gay, *E.*, preparation of [photographic] printing paper, (P.), B., 957.
- Gay, *E. H.*, blue-printing, (P.), B., 861.
- Gay, *L.*, distillation and rectification of complex mixtures, A., 928, 1133.
- Gay, *L.*, Mion, *P.*, and Auméras, *M.*, preparation and hydrolysis of esters by the distillation method. I., A., 14.
- preparation and hydrolysis of esters by the distillation method. II. Preparation of isoamyl acetate, A., 1053.
- Gay, *R.*, and Gibbons (Dudley), Ltd., [apparatus for] manufacture of gas retorts or other pipes from clay or the like, (P.), B., 68*.
- Gayler, (*Miss*) *M. L. V.*, preparation of pure manganese, B., 444.
- under-cooling of some aluminium alloys, B., 817.
- Geake, *A.* See Clibbens, *D. A.*
- Geake, *F. H.*, two natural resins, B., 971.
- Geatty, *C. A.*, [lead-antimony-copper] alloy, (P.), B., 847.
- Gebauer, *R.* See Chemische Fabrik von Heyden Akt.-Ges., and Traubenberg, *H. R. von.*
- Gebauer-Fülneegg, *E.*, aluminium amalgam as an agent for the reduction of benzenesulphonyl chlorides to thiophenols, A., 655.
- arylsulphur chlorides and arylsulphuranilides, A., 1060.
- Gebauer-Fülneegg, *E.*, and Beatty, *H. A.*, quinonethiolimines, A., 669.
- Gebauer-Fülneegg, *E.*, and Malnič, *E.*, 2:3-dichloroquinol, A., 240.
- Gebauer-Fülneegg, *E.*, and Riesenfeld, *F.*, arylsulphonyl chlorides, A., 139.
- Gebauer-Fülneegg, *E.*, and Riesz, *E.*, benzoquinonethiolimines, A., 52.
- Gebauer-Fülneegg, *E.*, and Specht, *W.*, preparation of ice-colours, (P.), B., 901.
- Gebauer-Fülneegg, *E.* See also Pollak, *J.*
- Gebelein, *F.* See Busch, *M.*
- Gedda, *G. G.*, manufacture of wrought iron, (P.), B., 46.
- Geddes, *J. R.* See Gerke, *R. H.*
- Gedroiz, *K. K.*, soil structure and its significance to agriculture, B., 151.
- mobility of soil compounds, and influence of calcium thereon, B., 263.
- solodisation (dealkalisation) of soils, B., 972.
- Gee, *A.* See Blandford, *T.*
- Geel, *W. C. van.*, intensities of the Zeeman components in the partial Paschen-Back effect, A., 83.
- Geels, *P.* See Michels, *A.*
- Geere, *E. W.*, controlling the production of carbon dioxide, (P.), B., 815.
- Gegenheimer, *R. E.* See MacMullin, *R. B.*
- Gehauf, *B.*, and Walker, *H. W.*, manufacture of silicofluorides and products thereof, (P.), B., 580.
- Gehlhoff, *G.*, and Thomas, *M.*, brittleness of opal glass, B., 877.
- Gehring, *A.*, lime requirement of soils, B., 309.
- Gehring, *A.*, Peggau, *A.*, and Wehrmann, *O.*, determination of the lime requirement of some Brunswick soils, B., 309.
- determination of the lime requirement of soils by means of the state of saturation with calcium, B., 728.
- Gehrke, *M.*, and Aichner, *F. X.*, arabinol, A., 544.
- Gehrke, *M.* See also Chemische Fabrik auf Aktien (vorm. E. Schering).
- Geiger, *E.*, caoutchouc and guttapercha. I. Condensation of caoutchouc and guttapercha dibromides with phenols and phenol ethers, A., 870.
- caoutchouc and guttapercha. II. Disazo-compounds from dihydroxy- and tetrahydroxy-diphenyldihydrocaoutchouc, A., 870.
- Geiger, *E.* See also Bruni, *G.*
- Geigy, *J. R.*, Aktien-Gesellschaft, mixing liquids for the purpose of carrying out reactions and for producing dispersion systems, (P.), B., 639.
- Geigy, *J. R.*, Aktien-Gesellschaft. See also Lüttin, *K.*, and Müller, *Hermann.*
- Gelling, *E. M. K.*, Campbell, *D.*, and Ishikawa, *Y.*, effect of insulin on hypophysectomised dogs, A., 994.
- Gelling, *E. M. K.* See also Abel, *J. J.*, and Supniewski, *J. V.*
- Geilmann, *W.*, and Hölte, *R.*, microchemical volumetric analysis. I. and II. Separation of small quantities of barium and calcium, A., 1159.

- Geilmann, W., and Wünnenberg, E., barium sulphate-potassium permanganate mixed crystals, A., 120.
- Geipert, R., calorific value of gas and its determination by means of a calibrated gas holder and Junkers' calorimeter, B., 179.
- process and apparatus for distilling small samples of coal, (P.), B., 516.
- process and apparatus for testing samples of coal by distillation, (P.), B., 643.
- Geisel, W. See I. G. Farbenind. A.-G.
- Geiss, W., and Liempt, J. A. M. van, Matthiessen's rule, A., 401.
- binary system cobalt-tungsten, A., 418.
- Geissen, G. See Kohlenveredlung Ges.m.b.H.
- Gelber, E. T. See Böeseken, J.
- Gelder, J. P. van, separating dust or fume from air and [dust-discharging device in] apparatus of the fabric tube filter type therefor, (P.), B., 640.
- Gelissen, H. C. J. H., and Novadel Process Corporation, milling products [flour], (P.), B., 376.
- Gell, P. V. W., Gould, C. E., Hampton, W. M., Martin, H. S., and Chance Bros. & Co., Ltd., colourless Crookes glass, (P.), B., 558*.
- Geller, R. F., and Pressler, E. E., comparison of the softening points of some foreign and American pyrometric cones, B., 332.
- Gellis, A. D. See Short, J. J.
- Geloso, M., adsorption in salt solutions by manganese dioxide and general deductions from this phenomenon. I., II., and III., A., 407.
- Gelsenkirchener Bergwerks Aktien-Gesellschaft, eliminating phosphorus from pig iron, (P.), B., 302.
- manufacture of cast iron with fine distribution of graphite, (P.), B., 605.
- Gelsenkirchener Bergwerks Aktien-Gesellschaft, Abtg. Schalke, production of aromatic hydrocarbons, (P.), B., 183.
- tempering steel with hydrogen or gases containing hydrogen, (P.), B., 223.
- Gelsenkirchener Bergwerks Aktien-Gesellschaft, Abtg. Schalke, and Caspari, F., condensation of zinc vapours on heated metallic surfaces, (P.), B., 223.
- Genberg, G. P., strength testing of chemical pulp. I. Relation between the initial strength of bleached sulphite and the strength properties developed in beating it, B., 471.
- Genders, R., penetration of mild steel by brazing solder and other metals, B., 254.
- mechanism of inverse segregation in alloys, B., 301.
- General Chemical Co., and Meiklejohn, R. M., production of aluminium sulphate, (P.), B., 778.
- General Chemical Co. See also Lippfert, W. J., Merriam, H. F., and Proctor, J. W.
- General Electric Co., electric arc welding, (P.), B., 561.
- General Electric Co., Campbell, N. R., and Eden, C. G., photometers [for electric incandescence lamps], (P.), B., 882.
- General Electric Co., and Patent-Treuhand-Gesellschaft für Elektrische Glühlampen, m.b.H., tungsten arc lamp, (P.), B., 145.
- manufacture of filaments for electric incandescence lamps, (P.), B., 258.
- readily fusible glasses and enamels, (P.), B., 365.
- manufacture of electric incandescence lamps, (P.), B., 493.
- General Electric Co., Ltd., and Smithells, C. J., [filament supports of] electric incandescence lamps, (P.), B., 786.
- General Electric Co. See also Barringer, L. E., Berry, E. R., Brophy, G. R., Campbell, P. A., Chapman, V. J., Charlton, E. E., Devers, P. K. jun., Ehlers, W., Flintermann, R. F., Fonda, G. R., Foulke, T. E., Friedrich, W., Fuller, T. S., Harbens, Ltd., Jones, C. E., Koref, F., Miller, L. B., Otis, A. N., Pacz, A., Peterson, C. F., Ruder, W. E., Seede, J. A., Steenstrup, C., Thomson, E., Unger, M., Valentine, I. R., Watson, H. L., Weed, J. M., and Wright, J. G. E.
- General Engineering Co. See Macintosh, J. C.
- General Fuel Briquette Corporation. See Zwayer, E. B. A.
- General Motors Corporation, Phillips, W. M., and Strausser, P. W. C., electrolytic deposition of chromium, (P.), B., 943.
- General Motors Corporation. See also Calingaert, G., Kettering, C. F., and Midgley, T., jun.
- General Motors Research Corporation. See Mongey, H. C., and Williams, H. M.
- General Petroleum Corporation. See Prutzman, P. W.
- General Petroleum Corporation of California. See Dickey, S. J.
- General Plate Co., and Davignon, V. D., manufacture of alloys containing gold, (P.), B., 785*.
- General Rubber Co., Jury, A. E., and Smith, O. H., method of preserving [rubber] latex and product obtained thereby, (P.), B., 420.
- General Rubber Co., and Mansfield, D. E., furnace for supplying drying gases, (P.), B., 512.
- General Rubber Co., and Teague, M. C., manufacture of rubberised material and compositions for same, (P.), B., 948.
- General Rubber Co. See also Jury, A. E., and Reel, J. H.
- General Seafoods Corporation. See Barry, J. J., and Birdseye, C.
- General Zeolite Co. See Behrman, A. S., Green, W. H., and Schreier, A.
- Genevois, L., respiration and fermentation in green plants, A., 905.
- Genevois, L. See also Aubel, E.
- Genge, F. E., manufacture of metal polishes, (P.), B., 913.
- Génin, G., influence of the orientation of the molecules in the clogging of filters and ultrafilters, A., 826.
- Gensecke, W. See Metallbank & Metallurgische Ges. A.-G.
- Genter, A. L., and Genter Thickener Co., method of thickening [filtering] mixtures, (P.), B., 831.
- Genter Thickener Co. See Genter, A. L.
- Genung, C. R., viscosity of cellulose solutions, B., 387.
- George, H., silica glass, B., 483.
- George, H. J. See Dyson, G. M.
- George, W. H., X-ray study of isomorphism in simple organo-metallic series. I. Tetraphenyls, A., 98.
- George, W. & J., Ltd. See Smith, J. D. M.
- Georgescu, V. N. See Ionescu, M. V., and Radulescu, D.
- Georgeson, E. H. M., and Hartwell, F. J., "uniform movement" of flame in mixtures of hydrogen and air, A., 211.
- Georgi, C. D. V. See Eaton, B. J.
- Georgia, F. R., and Morales, R., diagnostic value of neutral-red-lactose-peptone media for the *coli-acrogenes* group, B., 62.
- Gepp, H. W., Hey, H., Rigg, G., Stevens, R. H., Williams, R. T. D., and Electrolytic Zinc Co. of Australasia, Ltd., treatment of zinc-bearing ores and metallurgical products, (P.), B., 561*.
- Gerasimov, A. F., electrical endosmosis with sulphur, A., 110.
- polished platinum electrodes in conductivity work, A., 113.
- determination of velocity of cataphoresis of colloidal particles, A., 726.
- Gerdel, R. W., constant-level water-bath using distilled water, A., 224.
- Gerdel, R. W. See also Ames, J. W.
- Gerdts, G. F., determining critical temperature, (P.), B., 624.
- Gerdum, E. See Lemmermann, O.
- Gergacevics, O., apparatus for squirting materials which become plastic on heating, (P.), B., 185.
- Gerhardt, U., interference microscopical method for the measurement of small particles of 150 μ diameter, A., 934.
- Gericke, S., absorption and utilisation of phosphoric acid and potassium by seedling plants, B., 120.
- determination of the fertiliser requirements of soils by the Neubauer seedling method, B., 374.
- comparison of different methods for the determination of the degree of saturation of soils, B., 728.
- Gerieke, W. F., quality of bread from wheats supplied with nitrogen at different stages of growth, B., 424.
- why applications of nitrogen to land may cause either an increase or a decrease in the protein content of wheat, B., 826.
- Gerke, R. H., and Geddes, J. R., improved hydrogen electrode vessel and the E.M.F. of the mercury, mercurous bromide, bromide ion electrode, A., 734.
- Gerke, R. H., and Rourke, (Miss) M. D., potential of the gold-aureic oxide electrode, A., 941.
- Gerlach. See Keitel, H.
- Gerlach, F., electrolysis of alkali chlorides, (P.), B., 330.
- cell with mercury cathode for the decomposition of alkali chlorides, (P.), B., 849.
- Gerlach, M., Mitscherlich's method for determining the manurial requirements of soils, B., 54.
- determination of the manurial requirements of soils, B., 88, 262.
- Gerlach, M., and Nolte, O., determination of easily soluble soil phosphates, B., 87.
- Gerlach, O., manufacture of hydraulic cement, etc., (P.), B., 444.
- manufacture of plaster material, (P.), B., 603.
- Gerlach, R. M., manufacture of pigments, impregnating compounds, etc., (P.), B., 884.
- Gerlach, W., and Lehrer, E., susceptibility of gases, Curie's law, and diamagnetism of flame gases, A., 86.
- Gerlach, W. See also Dussler, E.

- Germann, F. E. E., and Traxler, R. N.**, preparation and m. p. of pure phosphorus di- and tri-iodides, A., 328.
- Germer, L. H.** See **Davison, C.**
- Germuth, F. G.**, occlusion of barium chloride by barium sulphate, A., 638.
production of terpineol from α -pinene in acid solution, A., 883.
volumetric determination of alumina in aluminium salts, B., 187.
detection of lactic acid in presence of other organic acids, B., 616.
- Gerngross, O.**, effect of acids and hydrogen-ion concentration on glue and gelatin, A., 19.
- Gerngross, O.** [with **Bán, N.**, **Sandor, G.**, and **Tsou, K.**], fluorescence of wood cellulose and vegetable tanning extracts, B., 137.
- Gerngross, O.**, and **Gorges, R.**, influence of hydrogen-ion concentration and of neutral salts on the degree of aldehyde tanning, B., 86.
- Gerngross, O.**, and **Hübner, H.**, fisetin; the cause of the fluorescein reaction with quebracho extract; fluorescein and fluorescence reactions of quebracho, tizerah, mimosa, and urunday extracts, B., 853.
determination of quebracho extract in other vegetable tanning extracts, B., 854.
- Gerngross, O.**, and **Sandor, G.**, fluorescence test for synthetic and natural tannins, B., 372.
- Gerngross, O.**, **Sandor, G.**, and **Tsou, K.**, adsorption of the violet fluorescing substances from pine bark extract and the yellow fluorescing substances from quebracho wood by different adsorbents; relation between adsorption and chemical constitution, B., 373.
- Gerngross, O.**, and **Schulz, M.**, fluorescence of cow's milk in filtered ultra-violet light, B., 613.
- Gerngross, O.** See also **Continental Akt.-Ges. für Chemie, Katz, J. R.**, and **Rhenania Verein Chemische Fabriken Akt.-Ges.**
- Gerő, S.** See **Köszegi, D.**
- Geritzen, S. C. L.**, and **Kauffman, M.**, detection of hardened fat in tallow by determination of the iodine values of the solid fatty acids separated by Twitchell's method, B., 944.
- Gers, W. B.**, and **Westinghouse Lamp Co.**, manufacturing metallic filamentary material; control of crystal development in refractory metals; preparation of tungsten powders, (P.), B., 16.
- Gersch, H.** See **Rupp, E.**
- Gersdorff, G. E. F.** See **Jones, D. B.**
- Gershon, V. P.** See **Grosvenor, W. M.**
- Gerth, F.**, and **Lorenz, A.-G., C.**, high-frequency electric furnace, (P.), B., 882*.
- Gervay, W.** See **Bodnár, J.**
- Gesell, R.**, and **Hertzman, A. B.**, regulation of respiration. III. Continuous method of recording changes in acidity applied to the circulating blood and other body fluids. IV. Tissue acidity, blood acidity, and pulmonary ventilation; effects of semi-permeability of membranes and the buffering action of tissues, A., 66.
- Gesell, R.**, and **McGinty, D. A.**, regulation of respiration. VI. Continuous electrometric methods of recording changes in expired carbon dioxide and oxygen, A., 166.
- Gesell, R.** See also **Hertzman, A. B.**
- Gesellschaft für Chemische Industrie in Basel.** See **Society of Chemical Industry in Basle.**
- Gesellschaft für Linde's Eismaschinen Akt.-Ges.**, production of concentrated sulphur dioxide, (P.), B., 440.
separating out from gas mixtures the constituents that are readily condensable, (P.), B., 465.
separation of gases, (P.), B., 629.
- Gesellschaft für Lupinen-Industrie m.b.H.**, removing the bitter constituents from lupins, (P.), B., 426.
- Gesellschaft für Maschinelle Druckentwässerung m.b.H.**, utilisation of sludge fuel, (P.), B., 900.
- Gesellschaft für Physikalisch-Chemische Untersuchungen**, dissolving insoluble substances [e.g., camphor], (P.), B., 859.
- Gesenius, H.** See **Weber, H. H.**
- Gessner, H.** See **Wiegner, G.**
- Gewalt, O.**, improving the qualities of coffee, (P.), B., 315, 763*.
- Gewerkschaft Gevenich**, production of compact [metallurgical] coke from peat, (P.), B., 290.
- Gewerkschaft M. Stinnes, and Weindel, A.**, carbonisation of bituminous coal in a rotary retort, (P.), B., 468.
- Gewerkschaft Sachtleben, and Kuppers, J.**, rotary furnace, (P.), B., 927.
- Gewerkschaft Wallram**, manufacture of heavy-metal carbides and similar difficultly-melting compounds, (P.), B., 80.
- Geys, C.**, head on beer from the physico-chemical point of view, B., 424.
- Ghanekar, R. V.**, and **Ayyar, P. R.**, oils and fats from the seeds of Indian forest plants. IX—XI. Oils from the seeds of *Cerbera odollam*, *Holarrhena antidysenterica*, and *Anona squamosa* (Linn.), B., 706.
- Gheorghiu, C. V.**, condensation of oximes with thiocarbimides; autoxidation of the additive compounds from oximes and thiocarbimides, A., 229.
- Gheorgiu, G.** See **Radulescu, D.**
- Ghose, T. P.**, vasicine—an alkaloid present in *Adhatoda vasica*. II., A., 785.
- Ghosh, B. C.** See **Mukherjee, J. N.**
- Ghosh, B. N.**, alleged second isoelectric point of gelatin, A., 725.
- Ghosh, G. N.** See **Mukherjee, J. N.**
- Ghosh, J. C.**, and **Baksi, J. B.**, preparation of formaldehyde by catalytic dehydrogenation of methyl alcohol. I., B., 426.
- Ghosh, J. C.**, and **Mitra, M. N.**, transformation of *allocinnamylidenacetic acid* into the normal form with iodine as photocatalyst in methyl alcohol solution. II., A., 560.
- Ghosh, S.**, and **Dhar, N. R.**, influence of ageing of a sol on its coagulation, A., 18.
adsorption. XVII. Concentration of a sol and coagulation by electrolytes, A., 305.
adsorption. XX. Adsorption of ions from mixtures of electrolytes by sols of ferric hydroxide and stannic acid, and ion-antagonism, A., 408.
sensitisation of sols by small amounts of other colloids, A., 414.
adsorption. XVIII. Coagulation of sols by a mixture of electrolytes and the phenomena of positive and negative acclimatisation, A., 617.
- Ghosh, S.** See also **Chakravarti, D. N.**
- Giauque, W. F.**, thermodynamic treatment of certain magnetic effects; proposed method of producing temperatures considerably below 1° Abs., A., 926.
paramagnetism and the third law of thermodynamics; interpretation of the low-temperature magnetic susceptibility of gadolinium sulphate, A., 926.
- Giauque, W. F.**, **Buffington, R. M.**, and **Schulze, W. A.**, copper-constantan thermocouples and the hydrogen thermometer compared from 15° to 283° Abs., A., 1163.
- Giauque, W. F.**, **Johnston, H. L.**, and **Kelley, K. K.**, hydrogen gas thermometer compared with the oxygen and hydrogen vapour-pressure thermometers by means of a copper-constantan thermocouple, A., 1163.
- Gibbons, W. A.**, and **Hazell, E.**, volume changes in the formation of rubber sols, A., 413.
- Gibbons, W. A.** See also **Bradley, C. E.**, and **Hopkinson, E.**
- Gibbons Brothers, Ltd.**, and **Cook, N. G.**, machines for discharging and charging furnaces or retorts, (P.), B., 863.
- Gibbons (Dudley), Ltd.** See **Gay, R.**
- Gibbs, H. D.**, separation of *p*-cresol from its isomerides, A., 456.
phenol tests. II. Nitrous acid tests, A., 475.
phenol tests. III. The indophenol test, A., 688.
phenol tests. IV. Velocity of indophenol formation, A., 870.
b. p. of *p*-cresol, A., 967.
- Gibbs, H. D.**, **Frederick, E. L.**, and **Du Pont de Nemours & Co.**, *E. I.*, production of aryl-peri-acids [phenyl- α -naphthylamine-8-sulphonic acid], (P.), B., 317.
- Gibbs, H. D.** See also **Hall, W. L.**
- Gibbs, R. C.**, extreme ultra-violet spectrum of titanium, A., 998.
- Gibbs, R. C.**, and **White, H. E.**, extension of doublet laws in the first long period to chromium and manganese, A., 177.
multiplets in two-electron systems of the first long period, A., 389.
multiplets in three-electron systems of the first long period, A., 601.
displacement of certain multiplets and multiple levels for elements in the first long period, A., 910.
- Gibbs, R. C.**, **Wilber, D. T.**, and **White, H. E.**, terms arising from similar and dissimilar electrons, A., 705.
- Gibbs, R. E.**, polymorphism of silicon dioxide and structure of tridymite, A., 10.
- Gibbs, W. E.** See **Clayton, W.**
- Gibson, A.**, production of hydrocarbon gas, (P.), B., 577.
- Gibson, C. S.**, isomerism of reduced derivatives of quinoxaline. II. Stereoisomeric 2:3-dimethyl-1:2:3:4-tetrahydroquinoxalines, A., 366.

- Gibson, C. S., Hariharan, K. V., Menon, K. N., and Simonsen, J. L., derivatives of naphthaquinolines and naphthaiisoquinolines, A., 574*.
- Gibson, C. S., and Johnson, J. D. A., 10-chloro-5:10-dihydrophenarsazine and its derivatives. V. General method of synthesis and determination of constitution, A., 1210.
- Gibson, C. S. See also Burton, H., and Sodeau, W. H.
- Gibson, D. T. See Drummond, A. M.
- Gibson, F. H. See Wright, A. H.
- Gibson, G. E., and Sosnick, B., computation of the free energy and fugacity in gaseous mixtures of ethylene and argon, A., 1027.
- Gibson, J. W., production of enriched illuminating or power gas from coal or other fuel capable of being distilled, (P.), B., 867.
- Gibson, K. S., Harris, F. K., and Priest, I. G., Lovibond colour system. I. Spectrophotometric analysis of Lovibond glasses, A., 537.
- Gibson, R. B., Greer, L., and Barer, A., utilisation of protein, carbohydrate, and fat in hypoglycæmia in diabetics requiring insulin; dextrose content of blood-plasma and corpuscles, and effect of insulin and dextrose on the acid-base balance of the blood, A., 1216.
- Gibson, R. B. See also Magers, E. J.
- Gibson, R. C. See Crommelin, C. A.
- Gibson, R. E., system sodium sulphate-water. I. Densities and specific volumes of aqueous solutions of sodium sulphate between 25° and 40°, and the fictive volumes of sodium sulphate in solution, A., 508.
- Gibson, W. W., [ore crushing] mill, (P.), B., 391.
- Gieckhorn, J., physical chemistry of colouring matters. II. Development of Firth's method of determining the electrical charge of colouring matters, and some experimental results, A., 624.
- Giese, O. See Kindler, K.
- Giesecke, F., losses of dry matter during the drying and storage of crops, B., 22.
- influence of external factors on soil structure, B., 233.
- Giesecke, F. See also Blanck, E.
- Gieseler, H., regularities in the spark spectrum of lead, A., 491.
- Giesen, J. See I. G. Farbenind. A.-G.
- Giesy, P. M. See Tapley, M. W.
- Giffen, E. K., recovery of silver from photographic spent thio-sulphate solution, (P.), B., 542.
- Gifford, J. W., and Lowry, T. M., refractive indices of nicotine, A., 499.
- Gilbert, B. E., and Hardin, L. J., current mineral nutrient content of the plant solution as a possible means of chemical control of optimum fertilisation, B., 825.
- Gilbert, B. E., McLean, F. T., and Hardin, L. J., relation of manganese and iron to a lime-induced chlorosis, B., 170.
- Gilbert, B. E., and Smith, J. B., ceruleomolybdate determination of phosphates, A., 1116.
- Gilbert, B. E. See also McLean, F. T.
- Gilbert, D. B. See Woodroffe, D.
- Gilbert, E. C., molecular rearrangement of some new unsymmetrical hydrazines, A., 238.
- effect of higher aliphatic acids on the surface tension of a heavy hydrocarbon oil, A., 510.
- Gilbert, E. C., and Clarke, L., system acetanilide-propionanilide, A., 1061.
- Gilbert, E. C., and Lauer, B. E., ternary system methyl benzoate, methyl alcohol, water, A., 830.
- Gilbert, F. L., Laxton, F. C., and Prideaux, E. B. R., determination of the dissociation constants of dihydric mono- and dinitrophenols electrometrically and colorimetrically, A., 1139.
- Gilbert, F. L. See also Prideaux, E. B. R.
- Gilbert, L. F. See Levi, M.
- Gil-Camporro, E. See Schwartz, F.
- Gilchrist, R., assay of rolled-gold plate, B., 656.
- Gilchrist & Co., and Graham, W. C., treatment of liquids [coagulation of the colloids of sugar juices], (P.), B., 952.
- Gilchrist & Co., Graham, W. C., Rumsey, H. S., and Wetherbee, A. U., separating substances such as solids and gases from liquids, (P.), B., 640*.
- Gilchrist & Co., and Shafor, R. W., mixing methods and apparatus [for liming sugar juices, etc.], (P.), B., 64.
- Gilchrist & Co. See also Graham, W. C.
- Gilderdale, C. W. See Baker, G. R.
- Gile, P. L., nature of the colloidal soil material, B., 310.
- Gile, P. L., chemical determinations to be made in the course of a soil survey, B., 951.
- Giles, E. M. See Cantelo, R. C.
- Gill, C. S., effect of varying ash in the coke on blast-furnace working, B., 781, 845.
- Gill, E. R., electric battery, (P.), B., 370.
- Gill, G. M., apparatus for cooling coke, etc., (P.), B., 517.
- ovens as a gasworks carbonising plant, B., 672.
- Gill, R., influence of plankton on the phosphate content of stored sea-water, A., 747.
- Giller, O., apparatus for the manufacture of calcium hydrogen sulphite solutions, B., 479.
- Gilles, J. See Croze, F.
- Gillespie, H. B. See Marvel, C. S.
- Gillespie, L. J. See Lurie, E.
- Gillet, A., molecular transformations and electronic theories of valency, A., 921.
- Gillet, A. See also Dufraisse, C.
- Gillet, J. M., and Goodyear Tire & Rubber Co., making a rubberised fibre composition, (P.), B., 52.
- Gillett, H. W., high-silicon structural steel, B., 631.
- Gillette, E. M. See Bloor, W. R.
- Gilligan, G. M. See Holland, E. B.
- Gillot, P., seeds of *Mercuriales*, B., 494.
- Gillon, J. L., and Warren, E. C., preliminary petrographic study of Portland cement, B., 750.
- Gilman, H., and Harris, S. A., reaction between cinnamyl chloride, magnesium, and carbon dioxide, A., 874.
- Gilman, H., and McCracken, R., reaction between nitrosobenzene and magnesium phenyl bromide, A., 550.
- effect of some solvents on the yields of Grignard reagents, A., 865.
- Gilman, H., and Robinson, J., preparation of lead tetraphenyl, A., 1098.
- Gilman, H., and Schulze, F., magnesium diethyl and its reaction with acetyl chloride, A., 1060.
- barium phenyl iodide, A., 1177.
- Gilman, J. A. See Page, R. O., and Parker, J. G.
- Gilse, J. P. M. van. See Aten, A. H. W.
- Gilta, G., crystallographic constants, A., 66.
- crystalline form of sodium β -glycerophosphate, A., 644.
- Gimingham, C. T., Massee, A. M., and Tattersfield, F., toxicity of 3:5-dinitro-*o*-cresol and other compounds to insect eggs, under laboratory and field conditions, B., 87.
- Gimingham, C. T., and Tattersfield, F., laboratory and field experiments on the use of 3:5-dinitro-*o*-cresol and its sodium salt for winter spraying, B., 453.
- Gimingham, C. T. See also Tattersfield, F.
- Ginneken, P. J. H. van. See Aten, A. H. W.
- Ginsberg, A. S., and Nikogosian, C., fusion of diabase with calcium carbonate, A., 335.
- solid solutions of calcium and sodium disilicates, A., 418.
- Ginsberg, H., electrolytic alkali determination in Drossbach's apparatus, A., 1161.
- Ginsburg, R., and Muchin, G., chemical kinetics in mixed solvents; influence of various substances on the velocity of formation of quaternary ammonium salts, A., 1149.
- Ginsburg, R. See also Muchin, G.
- Giordani, F., theories of the velocity of chemical reactions, A., 1145.
- Giordani, F., and Cittadini, A., provision of cellulose for viscose silk factories and utilisation of waste lyes from the manufacture, B., 627.
- Girard, A. E. P., and Roumazeilles, M. J. P., coating fibres with cellulose esters, (P.), B., 579.
- application of coatings to wires, cables, and the like, and composition therefor, (P.), B., 727*.
- Girard, M. See Society of Chemical Industry in Basle.
- Girard, R., action of complex saline solutions on the ferrous metals, B., 581.
- Girand, F. See Craig, N.
- Giron, E., production of beet molasses for feeding stuffs, (P.), B., 265.
- Girouard, E. P. C., manufacture of cement, lime, and the like, and kilns therefor, (P.), B., 45.
- Gitschthaler, E. See Skrabal, A.
- Giua, M., and Monath, E., halogeno-acylato-compounds of quadrivalent titanium, A., 1168.
- Giua, M., and Thuminger, L., pyrogenic dehydration of fusel oil, B., 316*.

- Giuffrè, U. See Romeo, G.
- Giulini, G., improving the mechanical properties of aluminium containing magnesium, (P.), B., 913.
- Givens, M. H. See Hill, C. B.
- Gjaldhæk, J. K., sodium aurous thiosulphate, A., 324.
- Glabau, C. A. See Wagner, T. B.
- Glaser, K. See Bach, H.
- Glaeser, W., production of mercury, (P.), B., 819.
- Glaser, C., protecting the gelatin coating of photographic plates and films, (P.), B., 829.
- Glaser, E., and Halpern, G., experiments with insulin *in vitro*, A., 77.
- Glaser, E., and Kahler, O., ruberythric acid, A., 752.
- Glaser, E., and Tramer, E., condensation products of vanillin and salicylaldehyde with acetone, and the mechanism of the condensation, A., 972.
- Glaser, E., and Zuckermann, N., heptosides, A., 650.
- hydrazine compounds of α -glucoheptose, A., 752.
- Glass Container Association of America. See Ford, K. L.
- Glassett, J. W. See Price, T. S.
- Glassmann, B., colorimetric determination of blood-sugar, A., 167.
- determination of urea, A., 169.
- total carbohydrate content of normal urine, A., 273.
- Glassmann, B., and Skundina, S., volumetric determination of urea in urine; constitution of mercury urea nitrates and the reactions between urea, mercuric nitrate, and water, A., 70.
- Glassmann, B., Zwilling, L., and Israilehn, M., total sugar content of cerebrospinal fluid and the influence of syphilis, A., 789.
- Glasstone, S., electrolytic polarisation. IV. Electrodeposition potentials of iron, cobalt, and nickel. V. Electrodeposition potentials of alloys of iron, cobalt, and nickel, A., 24.
- electrolytic polarisation. VI. Electrodeposition potentials of zinc with iron, cobalt, and nickel, A., 422.
- Glasstone, S., Bridgman, (Miss) J., and Hodgson, W. R. P., solubility influences. IV. Salting-out of aniline from aqueous solutions, A., 416.
- Glasstone, S., Dimond, D. W., and Harris, E. R., solubility influences. III. Salting-out effect of mixtures on aqueous solutions of ethyl acetate, A., 14.
- Glasstone, S., Dimond, D. W., and Jones, E. C., solubility influences. II. Effect of various salts on the solubility of ethyl acetate in water, A., 14.
- Glasstone, S., and Symes, T. E., electrodeposition of iron-nickel alloys. I., A., 633.
- Glattfeld, J. W. E., and Cameron, C. N., preparation of optically active hydrazines. III. *p*-"Active-amyl"-phenylhydrazines, A., 554.
- Glattfeld, J. W. E., Hopkins, H. H., and Thurber, F. H., preparation of *dl*- α -dimethyl-*n*-propylbenzoyl chloride and resolution of α -dimethyl-*n*-propylaniline, A., 559.
- Glattfeld, J. W. E., and Shaver, E. H., catalytic reduction of *d*-gluconic acid to *d*-glucose, A., 1054.
- Glattfeld, J. W. E., and Woodruff, S., C_1 -saccharinic acids. IV. Preparation of the two *dl*- α -dihydroxybutyric acids, A., 1054.
- Glätzel, G. See Baumgarten, P.
- Glaubach, S., cyanamide poisoning. II. Action of cyanamide on cysteine and cystine *in vitro*, A., 73.
- Glaubitz, M. See Haehn, H.
- Glauner, R. See Simon, A.
- Glaze, H. L., and Maas Chemical Co., A. R., dispersion of matter into a finely-divided form, (P.), B., 629.
- Gleditsch, (Mlle.) E., and Gleditsch, (Mlle.) L., isotopes; atomic weight of chlorine in potassium salts of Alsace, A., 493.
- Gleditsch, (Mlle.) L. See Gleditsch, (Mlle.) E.
- Gleich, H. See Feigl, F.
- Glietenberg, E., and Grasselli Dyestuff Corporation, azo-dyes from aminodiphenylene oxide, (P.), B., 627.
- Glimm, E., and Sommer, W., purification of malt amylase, A., 1110.
- Glimm, E., and Wadehn, F., sexual hormone (feminin) of human placenta, A., 78.
- Glirelli, S., and Wiertelak, J., electrokinetic potential of silica gel. I. Influence of structure of the diaphragm, A., 1139.
- Glockenstahlwerke Akt.-Ges. vorm. R. Lindenberg, and Schröder, W., hardening bath for machine tools, (P.), B., 819.
- Glockenstahlwerke Akt.-Ges. vorm. R. Lindenberg. See also Oertel, W.
- Glocker, R., general characterisation of phenomena associated with X-rays as a function of frequency, A., 999.
- Glocker, R., and Widmann, H., recrystallisation of silver, copper, and aluminium, B., 280.
- Glocker, R. See also Dehlinger, U.
- Glockler, G., activation of molecular hydrogen by electron impact, A., 293.
- ionisation produced by radon in spherical vessels, A., 1003.
- Glockler, G., Baxter, W. P., and Dalton, R. H., activation of molecular hydrogen by electron impact, A., 187.
- Glockler, G. See also Lind, S. C.
- Gloess, P., extraction of marine algae, (P.), B., 956.
- Glossop, G. J. See Bretherick, D.
- Glover, E. C. See Schmitz, H. L.
- Glover, W. H., Weyenbergh, E. van, and Courtaulds, Ltd., production of acylated cellulose ethers, (P.), B., 139*.
- Glover, W. H. See also Courtaulds, Ltd.
- Gloy, O. H. M. See Sherman, H. C.
- Glücksman, E., manufacture of aqueous emulsions of paraffin for use as medicines, (P.), B., 892.
- Glud, W., manufacture of hydrocyanic acid, (P.), B., 331*.
- Glud, W., and Klempt, W., recovery of ammonium thiocyanate in coking, B., 641.
- Glud, W., and Koppers Co., removal of sulphuretted hydrogen from gases, (P.), B., 469*.
- Glud, W., and Schneider, G., basic calculations and processes, together with the economics, of the conversion of ethylene in coke-oven gas into alcohol, B., 209.
- Glud, W., and Schönfelder, R., removal of hydrogen sulphide from coke-oven gases, B., 321.
- Glud, W., Schönfelder, R., and Riese, W., production of pure sulphur from gas sulphur, B., 521.
- Gmeiner, G., determination of carbon dioxide and oxygen by the Haldane apparatus with automatic mixing, A., 1228.
- Gminder, E., treatment of vegetable fibrous materials with mercerising and like liquids, (P.), B., 699.
- Gnädinger, C. B., effect of vacuum distillation on vanilla extract, B., 346.
- Gnädinger, F. See Lecher, H.
- Gnoinski, H. See Goebel, F.
- Goadby, K., bacterial proteins; presence of alcohol-soluble proteins in bacteria, A., 1222.
- Gobert, S., determination of caffeine, B., 153.
- Goby, J. See Langlais, P.
- Goche, O. See Balasse, G.
- Godard, J. S. See Parsons, C. S.
- Godbert, A. L., laboratory methods of determining the inflammability of coal dusts, B., 321.
- Godchot, M., syntheses of glycol derivatives of ethers, A., 444.
- Godchot, M., and Bedos, P., action of organomagnesium compounds on cycloheptene oxide, A., 233.
- Godden, W. See Husband, A. D., and Richards, M. B.
- Godel, A., separation or recovery of gases and vapours by solid absorbents, (P.), B., 464, 689.
- Godnev, T. N., and Naryschkin, N. A., action of ethyl oxalate on magnesium pyrryl iodide, A., 162.
- Godward, E. R., production of a dry mixture of vaporised fuel and air, (P.), B., 930.
- Goebel, F., and Gnoinski, H., cholesterol metabolism and the reticulo-endothelial system, A., 791.
- Goebel, H. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Goebel, W. F., preparation of hexonic and bionic acids by oxidation of aldoses with barium hypoiodite, A., 647.
- oxidation of dextrose in alkaline solutions of iodine, A., 648.
- soluble specific substance of Friedländer's bacillus. IV. Hydrolytic products of specific carbohydrate of type A Friedländer's bacillus, A., 1114.
- Goebel, W. F. See also Heidelberger, M.
- Göhre, O., solvents for separating aromatic and aliphatic hydrocarbons in oils, B., 131.
- Göler, (Freiherr) von, and Sachs, G., behaviour of aluminium crystals under tension. I., A., 299.
- texture of rolled and recrystallised regular surface-centred metals. I. and II., A., 504.
- internal stress [in tungsten wires] as revealed by X-ray photographs, A., 1130.
- structure and tensile properties of very pure aluminium, B., 336.
- Goens, E. See Grüneisen, E.
- Görbing, J., utilisation of sulphite-cellulose waste liquor for manurial purposes, B., 919.
- Görnitz, K. See Chemische Fabrik auf Aktien (vorm. E. Schering).

- Görz, G. See Ganssen, R.
 Göthe, H., electroplating [apparatus], (P.), B., 705.
 Goetz, A., thermionic emission from solid and liquid metals. I., A., 492.
 thermionic emission from solid and liquid metals. II. The thermionic melting diagram of copper, silver, and gold, A., 805.
 Götzen, A. See Lipp, P.
 Goffin, J. See Jacobsen, J.
 Goffin, L. See Jacobsen, J.
 Goggin, D. E., disposal of gases and vapours resulting from the boiling of oils, gums, resins, etc., (P.), B., 148.
 Gobin, J., production of anhydrous chlorides, (P.), B., 937.
 Goitein, E. See Kailan, A.
 Gold, H. See Hatcher, R. A.
 Goldbach, E. See Kurtenacker, A.
 Goldberg, J. M., enzymes of the omentum, A., 1104.
 Goldberg, M. W. See Ebel, F.
 Goldblatt, H., and Moritz, A. R., growth-promoting effect of irradiated fat in the diet, of direct irradiation, and of cod-liver oil, A., 282.
 effect of heat and oxidation on nutritive value of protein, A., 480.
 Goldblatt, M. W., effect of alkalosis on the excretion of chloride and on carbohydrate metabolism, A., 898.
 Goldhaber, G. See Friedrich, W.
 Goldhammer, H., oxidation of phenol with hydrogen peroxide in presence of iron salts, A., 1181.
 Golding, J., Soames, K. M., and Zilva, S. S., influence of the cow's diet on the fat-soluble vitamins of winter milk, A., 79.
 Golding, J., and Wagstaff, A., technique of the Gerber test, B., 313.
 Goldman, B., mixing and agitating machines and appliances, (P.), B., 511.
 Goldman, M. H., Hubbard, C. C., and Schoffstall, C. W., effect of dry cleaning on silks, B., 40.
 Goldsborough, R. E., and Goldsborough Patents Co., Ltd., apparatus for the generation of gas from liquid hydrocarbons for combustion, lighting, and other purposes, (P.), B., 404.
 Goldsborough Patents Co., Ltd. See Goldsborough, R. E.
 Goldschmidt, F., apparatus for the rapid determination of the conductivity of liquids, A., 128.
 Goldschmidt, H. [with Lund, V. K., Thuesen, A., Mathiesen, E., and Thomas, L.], conductivity and velocity measurements in isobutyl alcohol, A., 208.
 Goldschmidt, H., Marum, E., and Thomas, L., conductivity of acids of medium strength in methyl alcohol, and their catalytic action. II., A., 1143.
 Goldschmidt, H., and Thomas, L., conductivity and velocity measurements in *n*-propyl alcohol, A., 521.
 Goldschmidt, S., constitution of the proteins. III., A., 474.
 Goldschmidt, S., and Reichel, L., amino-oxidation. XI. Oxidation of primary amines; tetrafluorenylhydrazine, A., 963.
 Goldschmidt, S., and Schön, W., proteins. II. Benzoylated proteins, A., 581.
 Goldschmidt, S., Wiberg, E., Nagel, F., and Martin, K., proteins. IV., A., 983.
 Goldschmidt, T., Aktien-Gesellschaft, purification of sulphur, (P.), B., 218.
 utilisation of ferrosilicon masses containing valuable metals, (P.), B., 256.
 production of aluminium alloys having a high silicon content, (P.), B., 448.
 aluminium alloy, (P.), B., 606.
 Goldschmidt, T., Aktien-Gesellschaft, and Kohlschütter, V., atomising solid material, (P.), B., 463.
 Goldschmidt, T., Aktien-Gesellschaft. See also Guertler, W.
 Goldschmidt, V. M., crystalline structure and chemical composition, A., 611.
 Goldsmith, J. N., method of detecting and determining tung oil. I., B., 118.
 Goldsmith, N. See Stenström, W.
 Goldsmith, T. H., design and operation of horizontal retort settings [for producer-gas], B., 513.
 Goldstein, E., secondary magnetic canal rays at electrodes, A., 493.
 Goldstein, H., and De Simo, M., derivatives of diphenylamine-2-carboxylic acid. III., A., 1186.
 carbazine syntheses. III., A., 1201.
 Goldstein, H., and Piolino, M., derivatives of diphenylamine-2-carboxylic acid. II., A., 558.
 Goldstein, H., and Piolino, M., carbazine syntheses. II., A., 575.
 Goldstein, H., and Radovanovitch, H., azoximes. III., A., 63.
 Goldstein, H. See also Kehrmann, F.
 Goldstein, R. F. See Brady, O. L.
 Goldthorpe, W. O. See British Celanese, Ltd.
 Goldthwaite, N. E., variations in the composition of Colorado potatoes, B., 314.
 Goll, O. See Braun, J. von.
 Gollasch, T. See Mannich, C.
 Gollwitzer-Meier, K., specific action of ketonic substances on respiration, A., 1218.
 Golombick, M. P. See Petin, N. N.
 Golther, S. See Pfeiffer, P.
 Golub, W., colorimetric determination of nitrogen in foodstuffs, etc., B., 397.
 Golzov, P. J., and Jankovsky, W. D., determination of catalase in blood, A., 689.
 Gombert, M., and Bachmann, W. E., reducing action of a mixture of magnesium iodide (or bromide) and magnesium on aromatic ketones; probable formation of magnesium subiodide (or sub-bromide), A., 245.
 reduction of benzophenone by magnesium amalgam, A., 1190.
 reduction of benzil by the binary system magnesium-magnesium iodide (or bromide), A., 1190.
 Gooch, W. T., hydrolysis of ethyl acetate, A., 1036.
 Good, A. See Kohlschütter, V.
 Good, A. J. See Leslie, E. H.
 Goodeve, C. F. See Shipley, J. W.
 Goodings, A. C. See Speakman, J. B.
 Goodman, J. B. See Gustavson, R. G.
 Goodrich, R. J. See Ulich, L. H.
 Goodrich Co., B. F., and Gray, H., manufacture of thermoplastic derivatives of rubber, (P.), B., 610.
 Goodrich Co., B. F. See also Bedford, C. W., Fisher, H. L., Fritz, R. D., and Hoover, W. C.
 Goodricke, L. F. See Nesfield, A. C.
 Goodson, J. A., separation of *d*-neobornylamine from *d*-bornylamine, A., 569.
 δ -*d*-bornylsemicarbazide and δ -*d*-neobornylsemicarbazide, A., 1082.
 Goodtzov, N. See Seljakov, N.
 Goodwin, H. See British Dyestuffs Corporation, Ltd.
 Goodwin, H. B., and Latimer-Goodwin Chemical Co., insecticidal composition, (P.), B., 56.
 Goodwin, M. W. See Serex, P.
 Goodwin, R. C. See Kohler, E. P.
 Goodwin, W., Massee, A. M., and Le Pelley, R. H., tar distillate washes; their comparative effectiveness, under different conditions, on various pests, B., 23.
 Goodyear, E. H. See Drew, H. D. K.
 Goodyear Tire & Rubber Co., Boord, C. E., and Coolidge, E. N. C., vulcanisation of rubber, (P.), B., 393.
 Goodyear Tire & Rubber Co. See also Bedford, C. W., Brunsen, H. A., Carson, C. M., Charleson, J. T., Endres, H. A., Gillet, J. M., Kelly, W. J., O'Brien, W. G., Sebrell, L. B., Smith, C. H., and Teppema, J.
 Goos, A. W. See Olin, H. L.
 Goralevitch, D. K., higher oxygen compounds of the metals of the eighth periodic group. I. Iron, A., 433.
 Gorbach, G. See Zinke, A.
 Gorbatshev, S. V., and Vinogradova, E. N., interaction between iodine and starch, A., 722, 1174.
 hygroscopic properties of cotton wool and its charred product, B., 743.
 Gordon, A., recovery and refining of precious metals, (P.), B., 16.
 Gordon, A. F., Groves, W. H., and Western Electric Co., fusion furnace, (P.), B., 81.
 Gordon, B. See Cantarow, A.
 Gordon, G. G., disinfectant composition, (P.), B., 350*.
 Gordon, P. F., and Marshall, A. C., separation of the components of petroleum. V. Edge filtration. I. Isolation of waxes from untapped crude oil without pyrolysis, B., 642.
 Gordon, S. M., crossed dismutation between aldehydes and ketones. I. Benzaldehyde and menthone in relation to the menthone-menthol reactions in *Mentha piperita*, L., A., 1195.
 existence of menthone in the enol form, A., 1195.
 Mentha. XII. Significance of the presence of γ -methyl-*n*-butyl alcohol in *Mentha piperita*, L., and its identification, B., 346, 571.

- Gordon, S. M., *Mentha*. XIII. Oil of *Mentha piperita*, L., produced in 1924, B., 892.
- Gordon, W., Compton effect according to Schrödinger's theory, A., 84.
- Gorgas, A. See Holde, D.
- Gorges, R. See Gerngross, O.
- Gorman, P. See Andrew, R. E.
- Gorolovna, C. See Chrzaszcz, T.
- Gorter, E., and Grendel, F., spreading of proteins, A., 108*.
- spreading of fatty acids, fats, and proteins, A., 306.
- Gortner, R. A., sulphur in proteins. III. Derivatives of *L*- and *D*-cystine, A., 1212.
- combination between acid dyes and proteins, A., 1212.
- Gortner, R. A., and Hoffman, W. F., presence of amines in distillate from Kjeldahl nitrogen determinations, A., 80.
- inhibition of gelatin dried as a gel and as a sol, A., 414.
- sulphur in proteins. III. Derivatives of *L*- and *D*-cystine, A., 581.
- Gortner, R. A. See also Hoffman, W. F.
- Goss, F. R., Hanhart, W., and Ingold, C. K., alternating effect in carbon chains. X. Nitration of some derivatives of β -phenylethylamine, A., 236.
- Goss, M. J. See Phillips, M.
- Goto, K., sinomenol and disinomenol, A., 146.
- Gotta, A. See Sieverts, A.
- Gottenberg, M. J., and Alsberg, C. L., behaviour of alcohol-soluble proteins in mixed solvents. III. Denaturation of wheat gliadin, A., 825.
- Gottfried, C. See Fricke, R.
- Gottlieb-Billroth, H., derivatives of dibenzoarsenole [*oo*'-diphenylenearsino], A., 368.
- Gotts, R. A. See Mills, W. H.
- Gottschalk, A., fermentation of glycogen and starch by maltase-free yeast, A., 902.
- saccharification and fermentation of glycogen and starch by maltase-free yeasts, B., 424.
- Gotzky, S. See Schroeter, G.
- Goubeau, J. See Hönigschmid, O., and Zintl, E.
- Goudet, A. See Spindler, H.
- Goudet, C. See Breslau, J.
- Goudet, H., and Schenker, F., propylene derivatives, A., 440.
- Goudsmit, S., structure of the calcium fluoride band 6087 Å., A., 917.
- Goudsmit, S., and Back, E., coupling of the quantum vectors for neon, argon, and some hydrocarbon groups, A., 84.
- fine structure and term constants of the bismuth spectrum, A., 706.
- Goudsmit, S., and Uhlenbeck, G. E., spinning electron and the structure of spectra, A., 1121.
- Gould, C. E. See Gell, P. V. W.
- Goulding, A. M., Borsook, H., and Wasteneys, H., autodestruction of pepsin in relation to its ionisation, A., 278.
- Gourdjian, W., and Jones, G. L., clay bodies or material for making tiles, slabs, sanitary and other ware, (P.), B., 411.
- Goutal, E. See Hennebutte, H.
- Gouthière, H., decolorisation and purification of lactic acid, (P.), B., 459.
- Gow, G. K. See Read, B. E.
- Gowen, J. W. See Leavitt, H. W.
- Gowlett, F. W. See Pope, C. G.
- Goy, and Rudolph, W., arsenic content of East Prussian waters, A., 955.
- Goy, S., adipocere, A., 987.
- relation between the fat content of milk and that of the resultant cheese, B., 455.
- Graaff, W., extinguishing fires by foam, (P.), B., 690.
- Grabfield, G. P., Gray, C., Flower, B., and Knapp, E., mechanism of the action of iodides on nitrogen metabolism, A., 1219.
- Grabowski, C., principles of the analysis of rectification of liquid mixtures, A., 196.
- Gracianin, M., relationship between catalase activity and seed vitality, A., 384.
- Graefe, P., separation of solid and liquid suspensions from air, gases, and vapours, (P.), B., 463.
- Gräff & Co., renewal of used brine lake by extraction of its albumin, (P.), B., 345.
- Gräßlich Schaffgotsch'sche Werke G.m.b.H., preventing explosions in chambers used for grinding calcium carbide, (P.), B., 723.
- Gränacher, C., gas-volumetric micro-determination of carbon, A., 745.
- Gränacher, C., and Mahler, M., glyoxalone and glyoxalidone as anhydrides of amino-acid derivatives, A., 467.
- Graesser-Monsanto Chemical Works, Ltd., and Maxwell-Lefroy, H., compositions for exterminating insects and weeds, (P.), B., 94.
- extermination of insects, (P.), B., 94.
- Graesser-Monsanto Chemical Works, Ltd. See also Maxwell-Lefroy, H.
- Graetz, E. See Krüger, P.
- Graf, F. See Lecher, H.
- Grafe, E., and Meythaler, F., regulation of the production of insulin. I. Dextrose as the hormone liberating insulin, A., 1115.
- Grafe, E., Reinwein, H., and Singer, H., action of insulin. I. On normal animals, A., 282.
- Grafe, E. See also Baltzer, A.
- Grafe, V., and Ose, K., plant phosphatides. V. Aqueous dialysate of soya bean, A., 995.
- Graff, G., adulteration of brandy and its detection, B., 953.
- Graffe, L., determination of sulphur in manufactured rubber, B., 885.
- Graftiau, J., solubility of calcium phosphates in citric acid, B., 407.
- Graham, A. See Macy, I. G., and Outhouse, J.
- Graham, A. K., bright dipping of metal [copper and brass], B., 389.
- influence of variables on the structure of electro-deposited copper, B., 783.
- Graham, A. K. See also Müller, J. H.
- Graham, G. G. See Jensen, H.
- Graham, H., Macbeth, A. K., and Orr, W. B., labile nature of the halogen atom in organic compounds. XIII., A., 575.
- Graham, J. I. See Skinner, D. G.
- Graham, J. J. T., determination of unsulphonated residue in petroleum spray oils, B., 290.
- Graham, S. See Morris, N.
- Graham, W. C., Rumsey, H. S., Wetherbee, A. U., and Gilchrist & Co., separating substances from liquids, (P.), B., 32.
- Graham, W. C. See also Gilchrist & Co.
- Gramenitzki, M. G., possibility of transformation of one enzymic activity into another according to experimental conditions, A., 793.
- weakening of the oxidising properties of ferric chloride on warming, A., 844.
- conditions under which the iodine-starch reaction does not occur normally, A., 861.
- Grand, J. A., production of artificial silk yarns, etc., (P.), B., 184.
- Grand Central Mining Co. See Hendrickson, H. H.
- Granchamp, L. E., and Wolff, J. L., oxidation process, especially for use in removing iron from wine and other organic liquids, (P.), B., 568.
- Granger, L., continuous rectification of liquids, (P.), B., 591.
- Grant, J. See Sand, H. T. S.
- Grant, R. See Penfold, A. R.
- Grant, R. F., Wetherbee, H. E., and Hanna, H. M., process for oxidising a ferrous salt, (P.), B., 74.
- Grant, R. F. See also Wetherbee, H. E.
- Grant, T. E. See Lones, J. M.
- Grant, W. M. See Illinois Anthracite Corporation.
- Granular Iron Co. See Hornsey, J. W.
- Grard, C., and Villey, J., thermal conductivity of light alloys, B., 911.
- Grasselli Chemical Co., continuous crystallising apparatus, (P.), B., 32.
- apparatus for crystallisation, (P.), B., 65.
- apparatus for drying and heating, (P.), B., 287.
- electrolytic deposition of cadmium, (P.), B., 415.
- Grasselli Chemical Co., and Tanner, W. L., production of manganese arsenate, (P.), B., 388.
- Grasselli Chemical Co., Williams, I., and Burnett, W. B., producing aldehyde-amine condensation products [vulcanisation accelerators], (P.), B., 757.
- vulcanisation of rubber substances, (P.), B., 789.
- Grasselli Chemical Co. See also Drefahl, L. C., Graves, W. G., Howald, A. M., Howard, H., Taylor, E. A., and Wood, C. D.
- Grasselli Dyestuff Corporation, and Stein, B., preparation of 2:7-dinitroanthraquinone, (P.), B., 326.
- Grasselli Dyestuff Corporation. See also Cotton, W., Dnisberg, W., Eckert, W., Glietenberg, E., Hamby, A. B., Herz, R., Holl, A., Kahn, M., Keller, F., Kränzlein, G., Rahe, P., Schirmacher, K., Schmidt, M. P., Thiers, K., and Wagner, H.

- Grasser, *G.*, and Taguchi, *S.*, hydrolysis of pelt in acid media, B., 885.
- Grassmann, *W.*, plant proteases. IX. Dipeptidase and polypeptidase of yeast, A., 794.
- Grassmann, *W.*, and Haag, *W.*, plant proteases. VIII. Adsorption and separation of yeast proteases, A., 794.
- Grassmann, *W.* See also Waldschmidt-Leitz, *E.*
- Graulich, *W.*, heat economy of drying with hot gases, B., 31.
- Graumann, *E.* See Faust, *O.*
- Gravell, *J. H.*, metal pickling, (P.), B., 785, 913*.
- Graves, *G. D.* See Buchler, *C. C.*
- Graves, *W. G.*, and Grasselli Chemical Co., apparatus for drying and heating, (P.), B., 32.
- drying and calcining lithopone, (P.), B., 531.
- Gray, *C.* See Grabfield, *G. P.*
- Gray, *G. A.*, and Newburger, *M. B.*, treatment of butter cream, (P.), B., 922.
- Gray, *H.* See Goodrich Co., *B. F.*
- Gray, *H. Le B.*, and Staud, *C. J.*, some factors in the copper number of cellulose, B., 598.
- Gray, *J. A.*, properties of high-frequency radiations, A., 87.
- Gray, *J. A.* See also Cave, *H. M.*
- Gray, *S. H.* See Abramson, *H. A.*
- Gray, *T. T.* See Gray Processes Corporation.
- Gray, *W. H.*, action of antimony trichloride on diazotised diamines; [determination of antimony in organic compounds], A., 143.
- Gray Processes Corporation, and Gray, *T. T.*, process and apparatus for distilling or cracking hydrocarbons and purifying the vapours, (P.), B., 290.
- Grayson-Smith, *H.* See McLennan, *J. C.*
- Great Western Electro-Chemical Co. See Hirschkind, *W.*, and Rosenstein, *L.*
- Greathouse, *L. H.*, catalyst for ammonia synthesis, (P.), B., 298.
- Greaves, *J. E.*, microflora and productivity of leached and non-leached alkali soils, B., 421.
- Grebenschikov, *J. F.* See Pushin, *N. A.*
- Grechi, *G.* See Bigiavi, *D.*
- Green, *A.*, aromatic thionyl and chlorothionyl derivatives. I. Thionylpyrocatechol and dichlorothionylquinol, A., 354.
- aromatic thionyl and chlorothionyl derivatives. II. 1:2- and 2:3-Thionylidihydroxyanthracenes, A., 457.
- determination of the structure of α -hydroxyanthranols, A., 1079.
- structure of quinizarin, A., 1080.
- Green, *A. G.* See Coplans, *M.*
- Green, *A. T.*, effect of industrial usage on thermal conductivity of semi-silica material used in a coke-oven wall, B., 76*.
- thermal properties of refractories, and factors influencing them, B., 442.
- Green, *A. T.*, and Dale, *A. J.*, spalling of refractory materials, B., 442.
- Green, *A. T.* See also Vickers, *A. E. J.*
- Green, *B. M.* See Thaysen, *A. C.*
- Green, *C. H.* See Mellor, Bromley & Co., Ltd.
- Green, *E. L.*, paper strips for the Gutzeit determination of arsenic, A., 436.
- lubricating oils as insecticides in dormant spraying, B., 760.
- Green, *E. W.*, and Ogden, *H.*, centrifugal separators, (P.), B., 32.
- Green, *G. M.* See Jones, *A. O.*
- Green, *H.*, and Haslam, *G. S.*, relation of yield value to particle size, B., 147.
- Green, *H.* See also Hatfield, *W. H.*
- Green, *H. H.* See Theiler, *A.*
- Green, *J. B.*, and Loring, *R. A.*, Zeeman effect and structure in the spark spectra of tin, A., 912.
- term structure and Zeeman effect of the arc spectrum of tin, A., 912.
- Green, *J. R.*, occurrence of indium in tin, A., 635.
- Green, *M.*, Willard, *H. H.*, and Parker Rust-Proof Co., process of rust-proofing [iron], (P.), B., 785*.
- Green, *W. H.*, and General Zeolite Co., apparatus for regenerating zeolites, (P.), B., 382.
- utilisation of zeolites [for water-softening], (P.), B., 894.
- Greenawalt, *J. E.*, sintering plant, (P.), B., 47.
- sintering apparatus, (P.), B., 144.
- methods of handling material to be sintered, (P.), B., 432.
- Greenawalt, *W. E.*, metallurgical process [for copper ores], (P.), B., 16, 448.
- copper-extraction process, (P.), B., 223.
- Greenawalt, *W. E.*, metallurgical process; [recovery of copper and the precious metals from concentrates], (P.), B., 726.
- metallurgical process; [treatment of copper concentrate], (P.), B., 784.
- Greenbank, *G. R.* See Holm, *G. E.*
- Greenbaum, *F. R.*, calcium salts of low-temperature tar phenols, B., 211.
- Greenbaum, *F. R.*, and Raiziss, *G. W.*, elimination of iodine after oral or intravenous administration of various iodine compounds, A., 481.
- Greenberg, *C. M.* See Chapman, *L. M.*
- Greenberg, *D. M.*, formation and ionisation of compounds of casein with alkali. VI. Effect of temperature and concentration on the transport numbers of alkali caseinate solutions, A., 1140.
- Greenberg, *D. M.*, and Burk, *N. F.*, rate of hydrolysis of solutions of proteins in acids as measured by the formation of amino-nitrogen, A., 213.
- Greenberg, *D. M.* See also Updegraff, *H.*
- Greenberg, *H.* See Whitby, *G. S.*
- Greenburg, *L.*, benzol poisoning as an industrial hazard, B., 837.
- Greene, *C. H.*, and Rowntree, *L. G.*, effect of the administration of excessive amounts of water. I., A., 480.
- Greene, *H. E. B.*, and Greene, *J. H.*, method of imparting a decorative finish to articles, (P.), B., 884.
- Greene, *J. H.* See Greene, *H. E. B.*
- Greenewalt, *C. H.*, absorption of water vapour by sulphuric acid solutions, B., 72.
- Greenfield, *R. C.*, and Allis-Chalmers Manufacturing Co., crusher, (P.), B., 128.
- Greenfield, *R. E.*, Elder, *A. L.*, and McMurray, *R. E.*, biochemical oxygen demand test, B., 94.
- Greenleaf, *C. A.*, determination of milk fat in milk chocolate by means of a modified xylene number, B., 827.
- Greenstreet, *C. J.*, and American Coalinoil Corporation, production of fuel, (P.), B., 435.
- Greenwald, *I.*, and Gross, *Joseph*, effect of prolonged administration of parathyroid extract on excretion of phosphorus and calcium, A., 175.
- Greenway, *J. C.*, furnace for melting metals, (P.), B., 115.
- Greenwood, *C. H.* See Carborundum Co., Ltd.
- Greenwood, *C. V.* See Stocks, *H. B.*
- Greenwood, *G.*, variation of the atom form factor with the wavelength of the scattered radiation, A., 501.
- Greer, *L.* See Gibson, *R. B.*
- Greer, *W. N.* See Parker, *H. C.*
- Greger, *H. H.*, free-burning carbonised fuels for the open fire, B., 864.
- Greger, *J.*, cobalt thiocyanate as a microchemical reagent, A., 908.
- Gregg, *S. J.*, heat of adsorption of gases by charcoal, A., 820.
- Gregory, *E. D.*, agreement of an accelerated and an exposure test of structural paint, B., 946.
- Gregory, *H.*, and Archer, *C. T.*, emissivity methods of investigating thermal conduction in metals, A., 506.
- Gregory, *H.*, and Marshall, *S.*, thermal conductivity of carbon dioxide, A., 403.
- Greig, *J. W.*, immiscibility in silicate melts, B., 440.
- Greinacher, *H.*, electrical method of counting α - and H-particles, A., 915.
- Grendel, *F.* See Gorter, *F.*
- Grenell, *L. H.* See Jordan, *L.*
- Grenet, *L.*, existence of limiting states in alloy studies; equilibrium diagram involving the existence of limiting states, B., 334.
- Greppi, *E.*, Terwen's method for the determination of urobilin in urine and faeces, A., 70.
- Gresham, *E. G.*, method and apparatus for spraying, (P.), B., 545.
- Greulich, *E.*, chemical changes in magnetite when heated in air, A., 123.
- Greune, *H.* See I. G. Farbenind. A.-G.
- Greutert, *E.*, & Cie. See Degkwitz, *R.*
- Grewé, *E.*, and Bailey, *C. H.*, concentration of glutenin and other proteins in various types of wheat flour, B., 539.
- relation of hydrogen-ion concentration of dough to baking properties, B., 761.
- Griebel, *C.*, and Miermeister, *A.*, loss of mineral matter from potatoes during ordinary culinary preparation, B., 236.
- mucous cell content of cacao husks, B., 568.
- Griesheimer, *E. M.*, and Van Winkle, *C. C.*, plasma calcium in tuberculous adults, A., 588.

- Griessbach, R. See I. G. Farbenind. A.-G.
- Griffin, C. W., adsorption of hydrogen and ethylene on a copper catalyst poisoned with carbon monoxide, A., 1038.
- Griffin, C. W. See also Pease, R. N.
- Griffin, E. L., Richardson, C. H., and Burdette, R. C., relation of size of oil drops to toxicity of petroleum oil emulsions to aphids, B., 710.
- Griffin Wheel Co. See Vial, F. K.
- Griffith, I., and Ramanuskas, P. P., [determination of] mercury in mercuric salicylate, B., 457.
- Griffith, I. O., and Jenkins, R. G. C., fastness to light of dyestuffs on woollen and worsted fabrics. VI. Transmission of sunlight through glass and its effect on fading of dyestuffs, B., 839.
- Griffith, P. W. See Buchanan, G. H.
- Griffith, R. O. See Belton, J. W.
- Griffiths, (Miss) D. G. See Cranfield, H. T.
- Griffiths, E., thermal and electrical conductivity of a single crystal of aluminium, A., 613.
- gas analysis instrument based on sound-velocity measurement, B., 591.
- Griffiths, E., and Awbery, J. H., hygrometer employing glycerol, B., 224.
- Griffiths, E. See also Awbery, J. H.
- Griffiths Brothers & Co., London, Ltd., and Britton, R. P. L., manufacture of resin-like substances, (P.), B., 496.
- Grigaut, A. See Achard, C.
- Grignard, V., [constitution of Grignard's organo-magnesium derivatives], A., 962.
- Grignard, V., and Ono, K., action of cyanogen chloride on certain secondary organo-magnesium halides, A., 130.
- Grignard, V., and Savard, J., enolic forms of ketones, A., 567.
- Grigorjev, P. N., interaction between sodium metasilicate and salts soluble in water, A., 1155.
- Grijns, G., and De Haan, K., diet and reproduction. II., A., 283.
- Grillmayer, H. See Dischendorfer, O.
- Grillo, G. See Ciusa, R.
- Grimason, J. S., and Keasbey-Mattison, Ltd., heat-retaining coverings or lagging, (P.), B., 512.
- Grimble, F., Caird, M. N., and Coombs, E., centrifugal mixing or emulsifying apparatus, (P.), B., 96.
- centrifugal separators for liquids, (P.), B., 128.
- method of mounting and driving centrifugal separating apparatus, (P.), B., 433.
- Grimes, M., Barrett, H. S. B., and Reilly, J., methylene blue (reductase test) in milk grading, B., 794.
- Grimm, A. See Prandtl, W.
- Grimm, F. V. See Rogers, F. M.
- Grindrod, G., and Carnation Milk Products Co., process of producing edible fat, (P.), B., 92.
- Grippa, A. See Bargellini, G.
- Grischkevitch-Trochimovski, E., Mateyak, L., and Zablotski, organic arsenic compounds; some cyanides and dicyanides, A., 1210.
- Grischkevitch-Trochimovski, E., and Sikorski, S. F., optical properties of arsenic, A., 614.
- Grischkevitch-Trochimovski, E., and Zambrzycki, E., Grignard synthesis of certain organic arsenic derivatives, A., 233.
- Griscom-Russell Co., and Jones, R. C., heating or cooling viscous liquids, (P.), B., 434.
- Griscom-Russell Co., and Price, J., apparatus for cooling oil vapours, (P.), B., 36.
- heat exchangers, (P.), B., 63.
- Griscom-Russell Co. See also Jefferson, C., Pabodie, R. J., and Price, J.
- Grison, M., and Lepage, E., resistance to corrosion of steel containing copper, B., 604.
- Griswold, R. G., and Doherty Research Co., distillation of coal [of high sulphur content], (P.), B., 644.
- Groag, B., and Schwarz, H., influence of muscular work on blood lactic acid, alkali reserve, acidity of the urine, etc. in circulatory diseases, A., 373.
- Groeneveld, C. See Jorissen, W. P.
- Groening, A. A. [with Cady, H. P.], decomposition potentials and metal overvoltages in liquid ammonia and in water, A., 210.
- Gröningsæter, S., and Fischer Hollinshed Co., Inc., transference of vitamins, (P.), B., 570.
- Gröppel, E. See Gröppel, K.
- Gröppel, K., Gröppel, E., Waschkau, A. (Maschinenfabr. F. Gröppel, C. Luhrig's Nachf.), and Scholvién, W., settling apparatus [jigs] for washing granular materials, (P.), B., 800.
- Grogan, J. D., influence of calcium on aluminium containing silicon, B., 281.
- Gróh, J., dissolution velocity and the electrolytic solution pressure of lead and of bismuth, A., 1033.
- Gróh, J. [with Radványi, (Frau) M., Urbanek, L., and Lányi, K.], iodine-iodine equilibrium in solvents forming brown solutions, A., 728.
- Gróh, J., and Schmid, R., causes of the colour changes of cobalt chloride solutions. II., A., 728.
- Gróh, J., and Szelestey, J., existence of hexatomic iodine molecules in solutions of iodine in carbon disulphide and carbon tetrachloride, A., 728.
- Groll, H. See Hofmann, K. A.
- Grollman, A., inorganic phosphorus content of blood with reference to calcium concentration, A., 584.
- Gronover, A., and Blechschmidt, A., detection of hardened whale oil in lard, B., 730.
- Gronover, A., and Türk, F., significance of solids-not-fat for the detection of watered milk, B., 793.
- Gronover, A., and Wohlisch, E., polarimetric determination of starch in marzipan substitutes, B., 614.
- cadmium as a plating-metal for utensils, B., 657.
- Gronstedt, K. F. O., methods of preparing a remedy for tuberculosis in men and animals, (P.), B., 60.
- Gronwall, T. H., apparent diameters of ions in the Debye-Hückel theory of strong electrolytes, A., 626.
- Gronwall, T. H. See also La Mer, V. K.
- Groom, S. L. See Carrier Engineering Co., Ltd.
- Groot, J., behaviour of sugars in alkaline solution. II. Dextrose and sodium hydroxide, A., 341.
- Gross, E. See Filippov, A.
- Gross, E. G., lactose and calcium-phosphorus balance in dogs, A., 695.
- Gross, J., and Scott, J. W., precipitation of gold and silver from cyanide solution on charcoal, B., 936.
- Gross, Joseph. See Greenwald, I.
- Gross, O. See Johannsen, O.
- Grosse, A., isolation of protoactinium (element 91), A., 1120.
- Grosse, A. von, rubidium and caesium alkyls, A., 46.
- Grosse, W., and Dinkler, W., metal calorimetry for determination of the specific heats of metals, oxides, and slags, B., 336.
- Grosse, W. See also Oberhoffer, P.
- Grossfeld, J., determination of cacao shell by sedimentation, B., 154.
- polarimetric determination of starch in confectionery products, B., 456.
- determination of [finely-ground] cacao husk, B., 569.
- determination of the butyric acid value [of milk fat], B., 667.
- trichloroethylene as a solvent in the determination of fats, B., 754.
- determination of small amounts of benzoic acid in milk, butter, margarine, meat, and eggs, B., 794.
- Grossfeld, J., and Wissemann, F., saponification value of edible fats, B., 608.
- Grossman, F., use of the hydroquinhydrone electrode for pH determination in the fluids of the organism, A., 488.
- Grosvenor, W. M., Gershon, V. P., and Grosvenor, W. M., manufacture of anthraquinone paste, (P.), B., 597.
- Grosz, P., heat of dilution of electrolyte solutions, A., 940.
- Grote, G., anti-knock materials, B., 209.
- Grote, L., [burner for] combustion of pulverised fuel in furnaces, (P.), B., 358.
- Grotemut, W. H. See Huston, R. C.
- Grottrian, W., M-doublet of argon, A., 82.
- Grotta, B. See Wilcoxon, F.
- Grouchkine, L., preparation of di-iodotrimethylamine, (P.), B., 572.
- Grounds, A., cleaning of small coal, B., 129.
- modern design of carbon dioxide recorders and indicators, B., 672.
- Grove, O. See Barker, B. T. P.
- Grover, C. E., and Chibnall, A. C., enzymic deamidation of asparagine in the higher plants, A., 907.
- Grover, F. See Foxgrove Machinery Co., Ltd.
- Groves, W. H. See Gordon, A. F.
- Grube, G., passivation of metals by anodic polarisation, A., 1034.
- improving [the corrosion-resistance of] metal surfaces by diffusion, B., 941.

- Grube, G. [with Lieder, H., and Schächterle, P.], electrolytic preparation and electromotive behaviour of complex cyanides of univalent nickel and cobalt, A., 119.
- Grube, G., and Breiting, G., electrochemical behaviour of chromium. III. Equilibrium potential $\text{Cr}|\text{Cr}^{++}$ in sulphate solutions, A., 423.
- Grueber Maschinenbau Akt.-Ges., C. von, and Pfeiffer, C., ball or tube mill, (P.), B., 352.
- Grün, A., and Limpächer, R., resolution of asymmetric glycerides into their antipodes. I. Optically active glyceride sulphuric acids and the thermostability of the optical activity of their salts. II. Optically active glyceride phosphoric acids and the thermostability of the optical activity of their salts, A., 226.
- synthesis of lecithins. II., A., 227.
- syntheses of cephalins, A., 227.
- Grünbaum, A. See Snapper, I.
- Grünberg, A., displacement reactions of complex compounds, A., 31.
- mol. wts. of the isomeric platinum salts, A., 34.
- stereochemistry of the platinum salts, A., 922.
- Grünberg, A., and Pschenitzin, N., changes in heterometallic complex compounds on heating, A., 31.
- Grüneisen, E., and Goens, E., metal crystals. V. Thermal and electrical conductivity of crystals belonging to the regular system, A., 1017.
- Grüner, R., Beneš, Z., Schubert, E., and Arman, M., triazoles and their derivatives. VII., A., 777.
- Grüner, R. See also Brunner, K.
- Grüss, H. See Siemens & Halske A.-G.
- Guessner, F. A., and Guessner, G., extraction of metals [zinc or tin], (P.), B., 194.
- Guessner, G. See Guessner, F. A.
- Grützner, H. G. See Eucken, A.
- Grulis, B. See Passerini, M.
- Grumbach, A., photo-voltaic elements containing glycerol, A., 630.
- Grundt, (Mlle.) S., determination of lead as cyanide, A., 745.
- Grunert, H., effect of solutes on density of solvents, A., 928.
- Grunert, K., process and apparatus for producing artificial silk filaments, (P.), B., 138.
- Grunowoldt, H., removal of impurities from minerals and rocks, (P.), B., 606.
- Gruse, W. A. See Faragher, W. F.
- Grutterink, B. W. See Ringer, W. E.
- Gruyère Usines Laitières S.A., preparation of milk chocolate, (P.), B., 457.
- Guam, G. N., and Wilkinson, J. A., conductance in liquid hydrogen sulphide solutions, A., 419.
- Guardabassi, G. See Bianchi, A. E.
- Guarducci, P. See Bigiavi, D.
- Guarnieri, G. G., preparation of plant fibres, particularly jute, resistant to washing, (P.), B., 361.
- Gubelmann, I., Weiland, H. J., Stallmann, O., and Newport Co., manufacture of guaiacol, (P.), B., 460.
- Gubelmann, I. See also Adams, R.
- Gubler, H. See Society of Chemical Industry in Basle.
- Güdemann, J. See Elias, H.
- Gündel, W. See Pummerer, R.
- Guénot, L. See Fournier, L.
- Günther, and Seidel, cell-stimulation and increased yields of crops, B., 22.
- Günther, A. See I. G. Farbenind. A.-G.
- Günther, F. See I. G. Farbenind. A.-G.
- Günther, G., rapid viscosimeter for glue and gelatin and its application in industrial practice, B., 662.
- Günther, P., quantitative X-ray spectral analysis, A., 329.
- Günther, P., and Peiser, M., physico-chemical causes of the behaviour of the phenol-camphor medicament, A., 1109.
- Günther, P. See also Müller, Franz, and Paneth, F.
- Günther-Schulze, A., influence of traces of alkali or alkaline-earth metals on the normal cathode fall of potential of mercury, A., 24.
- valve action of silver in aqueous solutions of potassium silver cyanide, A., 317.
- potential gradient in the positive column. I. Nitrogen, hydrogen, neon, A., 392.
- potential gradient in the positive column: II. Oxygen, air, water vapour, helium, argon, krypton, xenon, and mercury, A., 709.
- Günther-Schulze, A., electrical insulating materials, B., 785, 881.
- Guerei, L. See Serono, C.
- Guernsey, E. W. See Kinney, S. P.
- Guerrieri, F., detection of the adulteration of wine with extract of figs, B., 200.
- Guertler, W., problem of acid-resisting metallic materials, B., 111.
- Guertler, W., and Bonsack, W., ternary system silver-tin-copper, A., 628.
- Guertler, W., Sander, W., and Goldschmidt, T., Akt.-Ges., aluminium alloys, (P.), B., 527.
- Guertler, W. M., silver alloys, (P.), B., 390.
- Gueudré, A. See Boyet, J. E.
- Gueurden, J. See Castille, A.
- Guggenheim, D., Guggenheim, M., Guggenheim, S. R., Guggenheim, S., MacGowan, J. K., Smith, E. A. C., and Burdick, C. L., refrigerating and heat-interchanging apparatus, (P.), B., 320.
- Guggenheim, M. See Guggenheim, D.
- Guggenheim, S. See Guggenheim, D.
- Guggenheim, S. R. See Guggenheim, D.
- Guggenheim Bros. See Burdick, C. L., and Smith, E. A. C.
- Guha, B. C. See Ray, (Sir) P. C.
- Guha, P. C., and Guha, S. C., action of ring-closing agents on δ -substituted thiosemicarbazide methyl dithiocarboxylates and δ -substituted semicarbazide methyl dithiocarboxylates; formation of different types of thiodiazoles and oxadiazoles, A., 981.
- formation of heterocyclic compounds. I. Action of methyl dithiocarbazinate on α -diketones and their monoximes, and on chlorides and esters of dibasic acids, A., 982.
- Guha, P. C., and Sen, P. C., action of carbamide on thiosemicarbazides: simultaneous formation of thiourazoles, aminoketothiodiazoles, endoxytriazole, and aminothioltriazoles, A., 784.
- Guha, S. C. See Guha, P. C.
- Guhl, M. See De Diesbach, H.
- Guiaud, L. F. P., red-coloured motor fuel, (P.), B., 835.
- Guibert, F. W., method of annealing or heat-treating steel or other metals, (P.), B., 912.
- Guider, W., froth flotation applied to a Baum [coal] washer, B., 641.
- Guignard, G. P., destructive distillation of vinasses, (P.), B., 100*.
- Guilhon, A. B. M., safety explosives, (P.), B., 894.
- Guillaume, A., modified Kjeldahl method for the determination of nitrogen in alkaloids with the piperidine grouping, A., 887.
- Guillaumie, M. See Frouin, A.
- Guillaumin, C. O., characterisation and determination of oxalate in the blood and in the cerebrospinal fluid, A., 475.
- Guillemard, H., purification of air containing carbon monoxide or other deleterious gases and intended for respiration, (P.), B., 206.
- Guillery, (Frl.) M., structure of the third positive nitrogen group, A., 496.
- Guillet, L., nitrogenisation of steels, B., 46.
- finishing process for aluminium and its alloys, B., 192.
- nitridation of steels, B., 558.
- properties of pure aluminium, B., 657.
- nitridation of special steels, B., 910.
- Guillet, L., and Ballay, M., temper-brittleness of steel, B., 14.
- Guillet, L., De Fleury, and De Lavaud, S., aluminium-silicon alloy "alpac," and its applications, B., 752.
- Guillet, L., and Roux, A., influence of gases on the properties of steels, B., 15.
- gases contained in brasses, aluminium, and its alloys, B., 336.
- Guillissen, J., application of Tammann's method of thermal analysis to reactions between solid phases, A., 1037.
- Guillissen, J., and Richard, temperature of formation of zinc ferrite from the solid constituents, A., 1037.
- Guillot. See Vizard.
- Guittonneau, G., oxidation of sulphur by micro-organisms during ammonification, B., 150.
- Guittonneau, G., and Keilling, J., solubilisation of sulphur and formation of thiosulphates in a soil rich in organic nitrogen, B., 587.
- Gulbransen, R. See Browning, C. H.

- Gulevitch, W. S., compounds extracted from tendon. XXIV. Carnosine and carnitine as specific constituents, A., 788.
- Gulevitch, W. S., and Kaplanski, S., presence of arginine in the spleen, A., 787.
- Gulf Refining Co., production of lower-boiling distillates from higher-boiling petroleum hydrocarbons, (P.), B., 357.
- Gulf Refining Co. See also Buerger, C. B., Faragher, W. F., McAfee, A. McD., and Prichard, G. L.
- Gulik, W. van. See Onnes, H. K.
- Gulland, J. M., Perkin, W. H., jun., and Robinson, R., strychnine and brucine, A., 889.
- Gumlich, E., magnetisable material, (P.), B., 560.
- Gumm, R. See Hyslop, J. F.
- Gundelach, W. See Hofmann, K. A.
- Gunn, G., preparation of a composition for preserving wood, timber, etc., (P.), B., 655.
- Guntz, A., and Benoit, F., commercial sodamide, B., 676.
- Guntz, A. A., luminescent product, (P.), B., 340*.
- Gupta, D. N. See Watson, E. R.
- Gurehot, C. See Bancroft, W. D.
- Gurevitch, G., and Pokrovskaya, E., action of formates on silver acetate, A., 1167.
- Gurney, J., and Plant, S. G. P., substitution in hexahydrocarbazole derivatives, A., 774.
- Gustafsson, E. G. T., production of malleable iron and steel directly out of oxide ore; production of iron and steel, (P.), B., 783.
- production of metals in electric furnaces, (P.), B., 785.
- Gustafsson, E. G. T. See also Flodin, H. G.
- Gustavson, K. H., sulphato-hydroxo-chromi-collagen compound, B., 53.
- absorption of acid and basic dyes by cationic and anionic chrome-tanned hide powder, B., 54.
- maximum reactivity of the hide protein in its isoelectric zone, B., 85.
- acidity of chrome[tanned] leather, B., 261.
- "ageing" of chrome[tanned] leather, B., 261.
- nature of one-bath chrome tannage, B., 284.
- behaviour of formaldehyde-tanned hide powder toward chromium compounds, B., 285.
- mechanism of tanning. I. Fixation of vegetable tannins by chrome-tanned hide protein, B., 341.
- specific ion effects in the behaviour of tanning agents towards collagen treated with neutral salts, B., 452.
- mechanism of tanning, B., 534.
- neutral salt effect in chrome tanning. I. Action of neutral chlorides on the tanning property of chromic chlorides, B., 824.
- Gustavson, K. H., and Widen, P. J., influence of the degree of lining on the amount of tannin absorbed by the hide, B., 230.
- Gustavson, R. G., and Goodman, J. B., solubility of non-irradiated cholesterol in liquid ammonia, A., 1133.
- Gustin, D. S., and Westinghouse Lamp Co., gas-filled electric incandescence lamp with filament having increased strength, (P.), B., 584.
- gas-filled incandescence lamp and getter therefor, (P.), B., 850*.
- Gustus, E. L., and Lewis, W. L., reactivity of the methylated sugars. I. Action of alkaline hydrogen peroxide solution on tetramethyl-D-glucose, A., 751.
- Gustus, E. L. See also Jacobs, W. A.
- Guthier, A. [with Köhler, R., and Schieber, W.], thermal colloid syntheses. III. Colloidal mercury, A., 108.
- Guthier, A., and Brintzinger, H., rapid dialysis of solutions of sodium silicate, A., 110.
- influence of hydrophilic colloids on the colour change of indicators, A., 202.
- Guthier, A., and Fahr, R., rapid dialyser, A., 38.
- Guthier, A., and Leutheusser, E., colloid syntheses with the aid of titanium trichloride. IV. Colloidal rhodium, A., 933.
- Guthier, A., and Ottenstein, B., dialysis of readily oxidisable colloid-disperse systems, A., 80.
- colloid syntheses with the aid of titanium trichloride. III. Colloidal copper, A., 932.
- Guthier, A., and Ottenstein, B. [with Kessler, E.], colloid syntheses with the aid of stannous chloride. I. and II., A., 307.
- Guthier, A., Ottenstein, B., and Allam, F., colloid syntheses with the aid of titanium trichloride. V. Colloidal bismuth and colloidal antimony, A., 933.
- Guthier, A., Ottenstein, B., and Jehring, W., reducing action of parchment paper used in dialysis, A., 342.
- Guthier, A., Ottenstein, B., Leutheusser, E., Lossen, K., and Allam, F., colloid syntheses with the aid of titanium trichloride. I. Products of hydrolysis and oxidation of titanium trichloride, A., 620.
- Guthier, A., Ottenstein, B., and Lossen, K., colloid syntheses with the aid of titanium trichloride. II. Colloidal gold and colloidal selenium, A., 620.
- Gutersohn, L., production of lead suboxide, (P.), B., 965.
- Guth, E., spinning electron and wave mechanics, A., 606.
- application of wave mechanics to the quantising of black-body radiation, A., 807.
- Guthrie, F. C. See Keffler, L. J. P.
- Guthrie, R. G., importance of cementite, B., 679.
- Gutmann, A., perchloromethyl mercaptan, A., 644.
- Gutmann, W. See Simon, A.
- Gutmacher, M. S., and Weiss, R., influence of urethane narcosis on specific dynamic action of glycine and dextrose in rabbits, A., 481.
- Guttmann, A., and Weise, C., hydraulic properties of a slag sand, B., 141.
- Gutton, C., and Mihul, (Mlle.) I., permeability of iron at high frequencies, A., 614.
- Gutton, H., and Clément, J., dielectric properties of ionised gases, A., 294.
- Guye, C. E., and Luyet, B., rotation of electric discharge in a decomposable gas, A., 1119.
- Guyer, J. A., Taylor, M. C., and Mathieson Alkali Works, Inc., recovery of chlorine, (P.), B., 218.
- Guzel, L. See Samec, M.
- Gwosdz, water-gas production from coal dust and finely-divided fuels, B., 959.
- Gwyer, A. G. C., and Phillips, H. W. L., constitution of alloys of aluminium with silicon and iron, B., 968.
- Gygax, P., and Akt.-Ges. Kesselschmiede Richterswil, dry-cooling of gas-works coke, (P.), B., 866.
- György, P., and Röhler, H., conditions of autolytic ammonia formation in tissues. III. Relation of tissue ammonia to purine metabolism, A., 901.
- Gyulai, Z., excitation by the absorption of light in crystals, A., 5.

H.

- Haabestad, E. E. See Ayres, E. E., jun.
- Haack, A. See Vilsmeier, A.
- Haaf, E. C. F. ten. See Michels, A.
- Haag, H. B. See Bond, W. R.
- Haag, W. See Falck, R., and Grassmann, W.
- Haagen, E. See Heraeus G.m.b.H., W. C.
- Haauen, C. A., and Felton & Guilleaume Carlswerk A.-G., production of insulating paper containing phenol resins, (P.), B., 519.
- Haar, A. W. van der, saponins and related substances. XVI. Hederagenin, A., 248.
- saponins and related substances. XVII. *Gypsophila* saponin and its hydrolysis products; gypsogenin and saccharides, A., 341.
- Haarmann, W. See Hahn, A.
- Haas, A. R. C., and Reed, H. S., absorption of ions by citrus and walnut seedlings, A., 596, 907.
- Haas, H., hank yarn dryers, (P.), B., 71*.
- yarn dryer, (P.), B., 138.
- apparatus for drying loose textile fibres, (P.), B., 248.
- Haas, J. See Vesely, V.
- Haas, L. W., interpretation of [bread] baking tests, B., 889.
- Haas, M., has pure aluminium an allotropic transformation point? A., 1131.
- Haas, P., and Russell-Wells, B., mucilaginous extracts of seaweeds, A., 80.
- Irish moss mucilage and its determination, B., 471.
- Haas, R. See Abderhalden, E.
- Haase, C. See Masing, G.
- Haase, G. See Busch, M.
- Haase, L. W., determination of sulphuric acid by precipitation with benzidine, A., 638.
- determination of sulphuric acid in water analysis by means of benzidine, B., 798.
- Haastert, H., plant growth in acid soils, B., 825.

- Haber, *F.*, gold in sea-water, *A.*, 439.
- Haber-Chuwis, *B.*, relation between composition and solubility of mixed crystals, *A.*, 197.
- Haberkorn, *V.*, manufacture of a medium for the protection of fibrous materials during the chemical treatment thereof, (*P.*), *B.*, 776.
- Hack, *E. B.*, production of material to be used in the formation of roadways, etc., (*P.*), *B.*, 603.
- Hackford, *J. E.*, deleterious properties of lubricating oils, *B.*, 272.
- Hackford, *J. E.*, and Hakol Ltd., generation of combustible gas, (*P.*), *B.*, 436.
- Hackl, *O.*, contamination of samples ground in iron mortars, *B.*, 671.
- Hackspill, *L.*, and Rinck, *E.*, reciprocal displacement of sodium and potassium from their chlorides, *A.*, 939.
- Hackspill, *L.*, and Salomon, *J.*, production of alkali silicates, (*P.*), *B.*, 965.
- Hacquart, *A. L.*, uranium minerals of Katanga, *A.*, 225.
- Hadamovsky, *P.*, heating, melting, evaporating, or cooling vessel, (*P.*), *B.*, 832.
- Hadaway, *W. S.*, jun., and Texas Co., [cracking] treatment of hydrocarbons, (*P.*), *B.*, 626.
- Haddon, *W.*, and Burnett, *J. M.*, pasted accumulator grid or plate, (*P.*), *B.*, 705.
- accumulator plate, (*P.*), *B.*, 786.
- Hadfield, *G. H.*, treatment of residues obtained from house refuse, (*P.*), *B.*, 670.
- Hadfield, (*Miss*) *I. H.*, light sources for testing the fastness of dyes, *B.*, 905.
- Hadfield, (*Miss*) *I. H.* See also Barr, *G.*
- Hadfield, *J.* See Bennett, *J. F.*
- Hadfield, (*Sir*) *R. A.*, alloys of iron and manganese containing low carbon, *B.*, 446.
- manganese and its properties: production of ferromanganese and its history, *B.*, 486.
- thermal changes in iron-manganese alloys, low in carbon, *B.*, 558.
- manufacture of steel products, (*P.*), *B.*, 658.
- manganese steel, (*P.*), *B.*, 819.
- Hadley, *W. E.*, disposal of trade waste from a plant mercerising, bleaching, and dyeing cotton materials, *B.*, 270.
- Hadwiger, *H.* See Weissenberger, *G.*
- Haedicke, *M.* See Tubandt, *C.*
- Häfele, *C.*, waterproof and like materials, (*P.*), *B.*, 406.
- Häffner, *F.* See Tillmans, *J.*
- Hägglund, *E.*, preparation of sugar from sawdust, *B.*, 137.
- treatment of the black liquor obtained in the manufacture of wood fibre by the soda process, (*P.*), *B.*, 165.
- chemistry of the sulphite process. V. Digestion of spruce wood with sodium bisulphite, *B.*, 213.
- utilisation of black liquor, (*P.*), *B.*, 215.
- pulping of Scottish pinewood by the sulphite process, *B.*, 294.
- digestion of wood with liquors of low sulphite content, *B.*, 744.
- Hägglund, *E.*, and Ahlbom, *L.*, fermentation of dextrose and pyruvic acid, *A.*, 379.
- Hägglund, *E.*, and Johnson, *T.*, reactions of wood with aromatic amines and with phenols, *A.*, 995.
- chemical properties and relative value of spring and autumn wood in manufacture of sulphite pulp, *B.*, 164.
- relation between fluorescence and the reddening of sulphite cellulose. VIII. Chemistry of the sulphite-cellulose digestion process, *B.*, 871.
- Hägglund, *E.*, and Ringbom, *A.*, fermentation of α -ketobutyric and oxalacetic acids. VII. Dependence of alcoholic fermentation on p_H , *A.*, 902.
- Hägglund, *E.*, and Rosenqvist, *T.*, influence of hydrogen-ion concentration on alcoholic fermentation. VI., *A.*, 279.
- kinetics of the action of carboxylase, *A.*, 376.
- pine wood lignin, *A.*, 388.
- Hägglund, *E.*, and Urban, *H.*, lignin acetals. I., *A.*, 753.
- Hähle, *H.* See I. G. Farbenind. A.-G.
- Haehn, *H.*, and Glaubitz, *M.*, fermentations with yeast regarded from the biological point of view. II. Fermentability of glyceraldehyde and dihydroxyacetone by living yeast, *A.*, 378.
- yeast fermentation. III. Pyruvic acid, *A.*, 902.
- Haehn, *H.*, and Stern, *J.*, iodometric determination of tyrosinase, *A.*, 699.
- Haehnel, *W.* See Consortium für elektrochemische Industrie G.m.b.H.
- Haehnel, *Wolfram.* See Herrmann, *W. C.*
- Hänel, *P.*, grinding mill, (*P.*), *B.*, 545.
- Hänsel, *G.* See Siemens & Halske A.-G.
- Häusler, *H.*, and Loewi, *O.*, hormone activity after administration of dextrose. I. Secretion of insulin after subcutaneous administration of dextrose. II. Insulin and glycaemin secretion after oral administration of dextrose. III. Fasting animals, *A.*, 795.
- diabetes and action of insulin. IX. Appearance in the blood after pancreatectomy of the substance antagonistic to insulin, *A.*, 795.
- Häusler, *H.* See also Dietrich, *S.*
- Häussler, *A.* See Boehringer Sohn, *C. H.*
- Hafner, *E. A.*, dynamics of salting out, *A.*, 1021.
- Hafstad, *M.* See Lindeman, *T.*
- Hagedorn, *H. C.*, regulation of the blood-sugar, *A.*, 68.
- Hagemann, *O.*, and Ohl, *E.*, biological importance of potassium in the human and animal organism, *A.*, 986.
- Hagen, *G.*, ammonium sulphate and soil acidity, *B.*, 791.
- Hagen, *G. B.*, demonstration model for illustrating the Laue effect, *A.*, 715.
- Hagen, *W.* See Morgenstern, *H.*
- Hagenow, *C. F.*, and Hughes, *A. L.*, intensity ratio of the blue caesium doublet, *A.*, 999.
- Hager, *F. D.* See Marvel, *C. S.*
- Hager, *K.*, uranyl acetyl (and benzoyl)-acetone compounds, *A.*, 668.
- Hager, *K.* See also Weinland, *R.*
- Hager & Co. G.m.b.H., centrifugal gas washer, (*P.*), *B.*, 210.
- Hagge, *W.* See I. G. Farbenind. A.-G.
- Haggerty, *J. F.*, manufacture of plastic composition, (*P.*), *B.*, 724.
- Hagiwara, *T.* See Weimarn, *P. P. von.*
- Hagspihl, *P.*, production of electrodes for electric accumulators, (*P.*), *B.*, 416.
- Hague, *A. P.* See Cammell, Laird & Co.
- Hagues, *G.*, hydrogen ions in brewing processes. III., *B.*, 589.
- Hahl, *H.*, Kropp, *W.*, and Winthrop Chemical Co., Inc., vanadium compound [of 8-hydroxyquinoline], (*P.*), *B.*, 92.
- Hahl, *H.*, and Winthrop Chemical Co., Inc., pharmaceutical products, (*P.*), *B.*, 317.
- manufacture of complex antimony compounds, (*P.*), *B.*, 734.
- Hahn, *A.*, and Haarmann, *W.*, behaviour of pyrimidine derivatives in organisms. III. Action of yeast extracts on amino-pyrimidines, *A.*, 993.
- dehydrogenation of succinic acid, *A.*, 1169.
- Hahn, *A.*, and Laves, *W.*, synthetic glucosides of pyrimidino derivatives. III., *A.*, 1057.
- Hahn, *C.* See Siemens-Schuckertwerke G.m.b.H.
- Hahn, *E.* See Terres, *E.*
- Hahn, *F. C.*, and Bradshaw, *H.*, viscosity of cuprammonium solutions of cotton cellulose, *B.*, 69.
- Hahn, *F. L.*, determination of soluble fluorides, *A.*, 125.
- decomposition of thiosulphate solutions, *A.*, 125.
- volatile barium sulphate, *B.*, 106.
- Hahn, *F. L.* [with Krutsch, *A.*, Déguisne, *H.*, Weiler, *G.*, and Hartleb, *E.*], application of potentiometric titrations in technical analysis, *B.*, 492.
- Hahn, *F. L.*, and Franke, *W.*, decomposition of oxidised ores [tantallite, wolfram, etc.], (*P.*), *B.*, 491.
- Hahn, *F. L.*, and Frommer, *M.*, determination of end-points in potentiometric titrations, *A.*, 743.
- Hahn, *F. L.*, and Hartleb, *E.*, volumetric determination of magnesium, zinc, aluminium, and copper, *A.*, 745.
- Hahn, *F. L.*, and Meyer, *Helmut.*, volumetric determination of phosphate and magnesium, *A.*, 534.
- Hahn, *F. L.*, and Schulze, *R.*, determination of solubilities by potentiometric titration, and the "insoluble" form of silver chloride, *A.*, 1020.
- Hahn, *F. L.*, and Vieweg, *K.*, 8-hydroxyquinoline as an analytical reagent; determination of magnesium, zinc, and aluminium; separation of aluminium or zinc from alkali metals, alkaline-earth metals, and magnesium, and of magnesium from alkali metals, *A.*, 639.
- Hahn, *F. L.*, Vieweg, *K.*, and Meyer, *H.*, gravimetric determination of magnesium and phosphoric acid, *A.*, 535.
- Hahn, *F. L.*, and Weiler, *G.*, potentiometric titrations. I. Determination of the end-point and potential change. II. Titration of iodide with permanganate, *A.*, 124.
- volumetric determination of calcium by precipitation as oxalate and titration with permanganate, *A.*, 222.

- Hahn, F. V. von, colloid chemistry of urine. I. Dependence of surface tension of urine on its specific gravity. II. Relationship of surface tension to the amount, colour, rotation, and urea content of urine. III. Surface tension of urine and the rate of sinking of blood-corpuscles. IV. Relationship of the colloid content of normal urine to its surface tension and viscosity. V. Are surface-active substances excreted in the urine in regular daily amounts? VI. Relationship of the viscosity of normal urine to its specific gravity, volume, and rotation, A., 70.
- influence of surface-active substances on the forms of growth of *Soor neonatorum* in respect to water-soluble vitamins, A., 283.
- Hahn, G., [exceptional instances of stereoisomerism], A., 748.
- quebracho alkaloids. I, A., 888.
- Hahn, G., and Brandenburg, W., yohimba alkaloids. II. and III., A., 471.
- Hahn, O., and Biltz, M., desiccation and rehydration of precipitates with large surfaces, A., 622.
- Hahn, O. See also Bodenstein, M.
- Haigh, L. D., suggested modification of the official method for potash [determination] in mixed fertilisers, B., 637.
- Hailwood, A. J. See British Dyestuffs Corporation, Ltd.
- Hailwood, E. A., manufacture of glass and articles therefrom, (P.), B., 76.
- Haines, W. B., physical properties of soils. IV. Theory of capillary phenomena in soil, B., 588.
- Hake, A. See Reihlen, H.
- Hakol, Ltd. See Hackford, J. E.
- Hakomori, S., use of amalgams in volumetric analysis. VII. Determination of phosphoric acid, A., 1160.
- Halban, H. von, photo-electric polarimetry, A., 92.
- Halban, H. von, and Eisenbrand, J., measurement of light absorption, A., 1017.
- Halban, H. von, and Siedentopf, K., measurement of low vapour and partial pressures, A., 747.
- Halbig, P. See Fischer, Hans.
- Haldane, J. B. S., carbon monoxide poisoning in the absence of hæmoglobin, A., 375.
- carbon monoxide as a tissue poison, A., 1110.
- Haldane, J. H., deterioration of cane juices and its prevention, B., 920.
- Haldinstein, G. E., preparation of japanned leather goods, (P.), B., 54*.
- Hale, H. See Meadow, J. R.
- Hale, W. J., Britton, J. W., and Dow Chemical Co., making aniline and other arylamines, (P.), B., 101.
- manufacture of phenolic compounds, (P.), B., 135.
- Hales, W. B., long wave-length limit of mercury, A., 1118.
- Haley, J. M., detection of alcohol adulterants, B., 92.
- Halferdahl, A. C., thermal decomposition of covellite and pyrite, B., 940.
- Halkyard, H. See British Celanese, Ltd.
- Hall, A. J., and Hill, R. A., production of photographic images on cellulose acetate film, B., 861.
- Hall, A. J. See also Silver Springs Bleaching & Dyeing Co., Ltd.
- Hall, C. P., process of softening rubber, (P.), B., 229.
- Hall, D., Kay, J. H., and Hall & Kay, Ltd., filters for air and gases, (P.), B., 96.
- Hall, E. A., Sanders, G. R., and Southwestern Engineering Corporation, [ore] flotation process, (P.), B., 784.
- Hall, E. H., photo-electric emission, thermionic emission, and Peltier effect from the point of view of dual electric conduction, A., 391.
- Hall, F. W., and Texas Co., manufacture of aluminium chloride, (P.), B., 299.
- treatment of oil with aluminium chloride, (P.), B., 931.
- Hall, G., preparation of a non-gelatinising tung oil product, (P.), B., 304.
- Hall, J. L. ter, apparatus for evaporating solutions, (P.), B., 383.
- Hall, L. See Fox, C. J. J.
- Hall, R. E., and Hopwood, J. M., treating steam-boiler water; treatment of boiler water, (P.), B., 238*.
- Hall, S. H., and De Laval Separator Co., process and apparatus for removing wax from oil, (P.), B., 291.
- Hall, V. C. See Jones, L. A.
- Hall, W. L., and Gibbs, H. D., diazo-sulphonates, A., 1181.
- Hall & Kay, Ltd. See Hall, D.
- Hall-Brown, A. See Babcock & Wilcox, Ltd.
- Halla, F., and Pawlek, F., space lattice of yellow lead monoxide, A., 924.
- Hallas, C. A., and Drakeley, T. J., influence of butaldehyde-ammonia in vulcanisation, B., 419.
- Hallauer, N. A. See Dons, H. N.
- Hallbauer, A., and Krüger, P., determination of manganese in cobalt steels, B., 447.
- Halle, H. J., and Universal Oil Products Co., apparatus for treating petroleum oil, (P.), B., 291.
- Hallensleben, J. See I. G. Farbenind. A.-G.
- Haller, A., and Cornubert, R., alkylcyclopentanones and -hexanones. I. Action of benzaldehyde and other aromatic aldehydes on cyclanones; differentiation of the *aa*- and *aa'*-dimethylcyclanones, A., 152.
- alkylcyclopentanones and -hexanones. II. Alkylation of 1-methylcyclopentan-2-one, A., 152.
- alkylcyclopentanones and -hexanones. III. Alkylation of 1-methylcyclohexan-2-one, A., 666.
- Haller, H. See Ganssen, R.
- Haller, H. L. See Levene, P. A.
- Haller, J. See I. G. Farbenind. A.-G.
- Haller, M. H., and Magness, J. R., relation of leaf area to growth and composition of apples, A., 385.
- Haller, R., colouring of starch grains, A., 201.
- coloured reserves obtained with vat dyes under indanthrene dyes, B., 475.
- dyes not fast to ironing, B., 840.
- Hallett, L. T. See Kemmerer, G.
- Halloran, R. A., Davis, W. N., Davidson, G. A., and Standard Oil Co., treatment of acid sludge, (P.), B., 36.
- Halpern, E., what are mixed crystals? A., 197.
- Halpern, G. See Glaser, E.
- Halse, O. M., determination of cellulose and mechanical pulp in paper, B., 8.
- Halvorsen, A. L., manufacture of stable hydrogen peroxide, (P.), B., 440.
- Halvorsen, H. O., and Starkey, R. L., transformations of iron in nature. I. Theoretical, A., 425.
- Hamasumi, M., macroscopical determination of carbon in Martin steel test pieces, B., 277.
- Hamblen, J. B. See Ward, J. T.
- Hambuechen, C., and Electro Metallurgical Co., electrodeposition of chromium, (P.), B., 370.
- Hamby, A. B., Woodward, J. D., and Grasselli Dyestuff Corporation, motor fuel, (P.), B., 181.
- Hamer, W. E., and Bury, C. R., physical chemistry of complex salts. I. Transport numbers of copper salicylate, A., 315.
- Hammersley Manufacturing Co. See Smith, H. A.
- Hamey, A. C., crushing and grinding machine, (P.), B., 431, 465*.
- Hamilton, E. R., distillation apparatus, (P.), B., 176.
- Hamilton, J. See Church, M. B., and Paine, H. S.
- Hamilton, T. S., lubricating compound, (P.), B., 2.
- Hamilton, T. S. See also Mitchell, H. H.
- Hamilton, W. B., and Evans, T. A., manufacture of iron and steel alloys, (P.), B., 79.
- Hamilton, W. F., and Barbour, H. G., effects of respiratory gases on density of blood and other fluids, A., 1101.
- Hammel, O. See Meerwein, H.
- Hammett, F. S., thyroid apparatus; rôle of thyroid and parathyroid glands in chemical differentiation of bone during growth. XLIV. Ash, organic matter, and water. XLV. Calcium, magnesium, and phosphorus, A., 594.
- Hammick, D. L., and Holt, W. E., pseudo-ternary systems containing sulphur. II. System sulphur-benzoic acid, A., 312.
- Hammond, C. F., and Shackleton, W., gaseous fuel burners, (P.), B., 68*.
- boiling or raising the temperature of water and other liquids, (P.), B., 240.
- method and apparatus for the concentration or purification of caustic soda or other suitable material, (P.), B., 251.
- heat-treatment of liquid and solid materials by means of hot liquids, (P.), B., 928.
- Hammond, J. A. S., and United States Industrial Alcohol Co., manufacture of alkyl carbonates, (P.), B., 59.
- production of chlorocarbonates [chloroformates], (P.), B., 378.
- Hammond, R. A. F., accurate determination of copper in bronze by electrolysis, B., 301.
- Hamon, M., transverse-current cooling tower, (P.), B., 768.
- Hamor, W. A. See Powers, P. O.
- Hamp, R., apparatus for making artificial fuel, (P.), B., 356.

- Hampe, P. See Windaus, A.
 Hampel, J. See Eckert, A.
 Hamprecht, G. See Foerster, F.
 Hampton, W. M. See Gell, P. V. W.
 Hamsa, W. R. See Morgulis, S.
 Hamsik, A., pyridine-haemins, A., 1100.
 Hamy, A., Schlagdenhaufen's reaction [for magnesium], B., 217.
 Hanawalt, J. D., and Ingersoll, L. R., non-magnetic films of iron, nickel, and cobalt, A., 192.
 Hancock, F. H. See Woodroffe, D.
 Hancock, G. C., occurrence of glass fragments in foods packed in glass containers, B., 502.
 Hancock, J. S. See Joseph, A. F.
 Handley, A. C., filters [for sewage and industrial effluents], (P.), B., 352.
 Handwerk, E. C. See New Jersey Zinc Co.
 Handy, J. A., and Hoyt, L. F., [determination of] ethyl phthalate. IV. and V., B., 315, 398.
 Handy & Harmen. See Leach, R. H.
 Hanemann, H., hardening of steel, B., 14.
 recrystallisation [of iron, steel, and copper], B., 334.
 theory of overheating phenomena in grey cast iron, B., 678.
 manufacture of grey cast iron, (P.), B., 819.
 Hanemann, H., and Hinzmann, R., influence of grain size on the mechanical properties of steel, especially on the notched-bar test, B., 844.
 Hanhart, W., and Ingold, C. K., alternating effects in carbon chains. XVIII. Mechanism of exhaustive methylation and its relation to anomalous hydrolysis, A., 650.
 Hanhart, W. See also Goss, F. R.
 Hanish, S. See Junkersdorf, P.
 Hankins, G. A., diamond cone indentation hardness tests, B., 46.
 Hanle, W., polarisation of the resonance fluorescence of sodium vapour, A., 292.
 Hann, R. M., and Keenan, G. L., optical identification of the naphthalenesulphonic acids by means of their benzyl- ψ -thiocarbamide salts, A., 866.
 Hann, R. M., and Spencer, G. C., chlorovanillin and some of its derivatives, A., 361.
 Hann, R. M. See also Frey, R. W.
 Hanna, H. M. See Grant, R. F., and Wetherbee, H. E.
 Hannan, J. R. See English, W. E.
 Hannay, J. R., problems of modern calico-printing technique, B., 41.
 Hannum, J. E., protecting the eyes of chemical workers, B., 687.
 Hanovia Chemical & Manufacturing Co., method of enhancing the therapeutic value of ultra-violet rays, (P.), B., 117*.
 Hanovia Chemical & Manufacturing Co. See also Miller, H.
 Hansen, A., determination of dextrose in blood, A., 168.
 Hansen, G., hyperfine structure in the noon spectrum, A., 177.
 Hansen, K. See Diels, O.
 Hansen, K. H., production of highly oxidised oil suitable for use as emulsifying agent, e.g., in the manufacture of margarine, (P.), B., 340.
 Hansen, M., structure of red brass [copper-tin-zinc alloys], B., 78.
 magnesium-rich magnesium-copper alloys, B., 255.
 saturation limit of α -copper-tin solid solution, A., 1141.
 Hansen, M. See also Bauer, O.
 Hansen, O. H., and Hansen Canning Machinery Corporation, preservation of fruit, (P.), B., 732.
 Hansen, P., formation of hydrocyanic acid from linseed meal, and its dependence on the hydrogen-ion concentration, B., 503.
 Hansen, W. C., and Bogue, R. H., combination of lime in Portland cement compounds, B., 938.
 Hansen, W. C., Dyckerhoff, W., Ashton, F. W., and Bogue, R. H., system lime-alumina-silica; the composition $8\text{CaO} + \text{Al}_2\text{O}_3 + 2\text{SiO}_2$, A., 519.
 Hansen, W. C. See also Kiehl, S. J.
 Hansen Canning Machinery Corporation. See Hansen, O. H.
 Hansen-Schmidt, E. See Kaufmann, H. P.
 Hansena Akt.-Ges., and Nathan, L., treatment of yeast for use in the brewing of beer, (P.), B., 613.
 fermentation and maturation of beer, (P.), B., 760.
 pasteurisation of beer, (P.), B., 761.
 Hanson, D., constitution of silicon-carbon-iron alloys and a new theory of the cast irons, B., 782.
 Hanson, D., and Ford, G. W., effects of impurities on copper. V. Effect of bismuth on copper, B., 280.
 Hanson, D., and Marryat, C. B., effects of impurities on copper. III. Effect of arsenic on copper. IV. Effect of arsenic plus oxygen on copper, B., 280.
 Hanson, D. See also Everest, A. B., and Rosenhain, W.
 Hanson, G. B. See Eddy, H. C.
 Hanson, H. H., and Tarratine Manufacturing Co., Inc., production of a [hard-water] soap compound, (P.), B., 585.
 Hansson, N., calculation of the value of foodstuffs for milk production and for fattening stock, B., 202.
 Hantzsch, A., *cis-trans*-isomerism in the case of metallic salts of the type R_2MX_2 , A., 93.
 solvation and complex formation as causes of colour change in cobaltous halides, A., 205.
 constitution of normal diazohydrates, A., 455.
 constitution of homogeneous acids, A., 1011.
 nature of solutions of cobalt halides, A., 1023.
 keto- and lactone forms of benzil-o-carboxylic acid, A., 1188.
 Hantzsch, A., and Carlsohn, H., true and pseudo-halides, A., 327.
 Hantzsch, A., and Kröber, W., action of benzoyl chloride on isatin salts, A., 673.
 Hantzsch, A., and Weissenberger, A., kinetics of reaction in the presence of strong acids, A., 525.
 Hara, R. See Abe, S., and Sinozaki, H.
 Harada, T., organo-metallic oxonium salts, A., 685.
 Harbens (Viscose Silk Manufacturers), Ltd., Sharples, W. E., and General Electric Co., Ltd., spindles of spinning machines for artificial silk, (P.), B., 71*.
 Harbison-Walker Refractories Co. See Rochow, W. F., and Schlotterer, G. K.
 Harden, A., and Henley, F. R., preparation of yeast-juice by Buchner's method, A., 278.
 the equation of alcoholic fermentation, A., 1113.
 Harden, W. C., and Dunning, F., preparation of bismuth thiol-acetamide, A., 544.
 Harder, C. M. See French, M. M.
 Harder, M. See Freudenberg, K.
 Harder, O. E., and Dowdell, R. L., decomposition of austenite in liquid oxygen, B., 679.
 X-ray studies on the decomposition of austenite, B., 724.
 proposed theory of the hardening and tempering of steels, B., 751.
 Harder, O. E. See also Dowdell, R. L., Priester, G. C., and Reyerson, L. H.
 Hardin, L. J. See Gilbert, B. E.
 Harding, E. P., and Dysterheft, G., determination of iron, calcium, magnesium, phosphorus, ash, and protein in hard spring wheat and in the flour streams representing the largest volume of flour produced in its milling, B., 397.
 Harding, E. R. See Heinz Co., H. J.
 Harding, J. S., Casparis, W. R., and Stephenson, S. E., manufacture of slag cement, (P.), B., 723.
 Harding, V. J., Allin, K. D., and Eagles, B. A., influence of fat and carbohydrate diets on uric acid of blood, A., 1108.
 Harding, V. J., and Montgomery, R. C., nitrogenous metabolism in the puerperium, A., 694.
 Hardinge, H. See Hardinge Co., Inc.
 Hardinge Co., Inc., and Hardinge, H., apparatus for classifying [air-borne] materials, (P.), B., 208.
 Hardman, A. F., and White, F. L., accelerator characteristics as revealed by coefficients of vulcanisation, B., 823.
 Hardy, C. R. See "Hart" Accumulator Co., Ltd.
 Hardy, F., measurement of "suction forces" in colloidal soils, B., 728.
 Hardy, R. L. See Mathers, F. C.
 Hargitt, T. F., Hall effect in bismuth sputtered films, A., 99.
 Hargreaves, C. C. See Swanson, E. E.
 Hargreaves, F., application of strain methods to the investigation of the structure of eutectic alloys, B., 255.
 crystallisation of the lead-tin eutectic, B., 281.
 effect of work and annealing on the lead-tin eutectic, B., 968.
 Hargrove, J. See Morton, L.
 Hariharan, K. V. See Gibson, C. S.
 Haring, H. E., and Barrows, W. P., electrodeposition of chromium from chromic acid baths, B., 606.
 Harington, C. R., and Barger, G., thyroxin. III. Constitution and synthesis of thyroxin, A., 358.
 Harington, C. R., and McCartney, W., Erlenmeyer's amino-acid synthesis, A., 961.
 Harker, G. See Newman, R. K.

- Harkins, W. D., application of the drop-weight method to the determination of the surface tension of colloidal solutions, A., 17.
- Harkins, W. D., and Shadduck, H. A., synthesis and disintegration of atoms as revealed by the photography of Wilson cloud tracks, A., 87, 183.
- Harkins, W. D., Young, T. F., and Cheng, L. H., ring method for the determination of surface tension, A., 108.
- Harman, H. W., and Oliver, J. H., fermentation control, B., 24.
- Harman, R. W., aqueous solutions of sodium silicates. V. Osmotic activity, lowering of vapour pressures and f. p., A., 415.
- aqueous solutions of sodium silicates. VI. Heterogeneous equilibria; system sodium oxide-silica-water at 25°. VII. Silicate ions; electrometric titrations, diffusion, and colorimetric determination, A., 519.
- Harned, H. S., activity coefficients, ionic concentrations, and kinetic salt effects of formic acid in neutral salt solutions, A., 206.
- electrochemistry of solutions of mixed electrolytes, A., 828.
- thermodynamic properties of a few concentrated salt solutions, A., 1028.
- Harned, H. S., and Douglas, S. M., activity coefficients of sodium and potassium bromides and iodides in concentrated aqueous solutions, A., 112.
- Harner, H. R. See Calbeck, J. H.
- Harnisch, M., manufacture of artificial stone, (P.), B., 750.
- Harnist, C., simultaneous manufacture of ammonium sulphate and bisulphate and of sulphur, (P.), B., 522.
- Harnwell, G. P., ionisation by collisions of the second kind in the rare gases, A., 604.
- ionisation by collisions of the second kind in mixtures of hydrogen and nitrogen with the rare gases, A., 709.
- Harnwell, G. P. See also Smyth, H. D.
- Harper, H. J., Baker, W. G., Boatman, B., and Boatman, J. L., utilisation of phosphoric acid in superphosphate by maize, B., 663.
- Harper, H. J., and Boatman, B., nitrification of ammonium sulphate in soil, B., 373.
- Harper Electric Furnace Corporation. See Fitzgerald, F. A. J., and Kelleher, J.
- Harpuder, K., biochemistry of complex salt solutions. I. Biological action of Wiesbaden hot-spring water. II. Influence of ferrous and manganous ions on respiration and fermentation of yeast, A., 589.
- Harr, R. See Endell, K.
- Harrel, C. G., some variable factors of bread production, B., 201.
- Harries, C. See Siemens & Halske A.-G.
- Harries, W., energy loss of slow electrons in collisions with molecules, A., 392.
- Harrington, E. A., X-ray diffraction measurements on some of the pure compounds concerned in the study of Portland cement, A., 715.
- Harrington, J. H., and Robb, G. W., treatment of water, (P.), B., 462.
- Harris, B. R. See Epstein, A. K.
- Harris, C. A. See Pease, R. N.
- Harris, C. R. See Wheeler, A. S.
- Harris, E. E., and Frankforter, G. B., condensations of chloral and bromal with phenolic ethers in presence of anhydrous aluminium chloride, A., 139.
- Harris, E. E. See also Talbert, G. A.
- Harris, E. R. See Glasstone, S.
- Harris, F. K. See Gibson, K. S.
- Harris, F. W., and Petroleum Rectifying Co. of California, breaking oil-water emulsions, (P.), B., 163.
- Harris, F. W. See also Percy, W. W.
- Harris, H., treatment of impure molten metallic masses, (P.), B., 224.
- refining and separation of [oxysalts of] metals [arsenic and tin], (P.), B., 653.
- refining and separation of metals, (P.), B., 784.
- Harris, J., and Rose, J. R., gaseous fuel [for welding, etc.], (P.), B., 740.
- Harris, J. E. See Schumacher, E. E.
- Harris, J. E. G., Wylam, B., Thomas, J., and Scottish Dyes, Ltd., intermediates, dyes, and dyeing, (P.), B., 102.
- Harris, J. E. G. See also Drescher, H. A. E., Morton Sundour Fabrics, Ltd., and Wylam, B.
- Harris, L. E. See Schuette, H. A.
- Harris, N. L. See Emeléus, K. G.
- Harris, S. A. See Gilman, H.
- Harris, Hart & Co. See Hart, B.
- Harrison, A. C., resistance to abrasion of ceramic glazes: its control and methods of determination, B., 749.
- Harrison, A. P., and International Yeast Co., Ltd., manufacture of yeast, (P.), B., 666.
- Harrison, A. W. C., lake dyestuffs and their application, B., 246.
- Harrison, C. F. R., and Baxter, J. P., combustion of carbon monoxide, A., 211.
- Harrison, C. F. R. See also Synthetic Ammonia & Nitrates, Ltd.
- Harrison, D. C., catalytic action of traces of iron and copper on the anaerobic oxidation of sulphhydryl compounds, A., 527.
- oxidations by hydrogen peroxide in presence of sulphhydryl compounds, A., 699.
- Harrison, D. N. See Dobson, G. M. B.
- Harrison, G. E., intensity distribution in the fine structure of the Balmer lines, A., 285.
- Harrison, H. C., electrolytic process and apparatus [for depositing metals, e.g., copper], (P.), B., 658.
- electrolytic process and apparatus [electrodeposition of metals], (P.), B., 705.
- Harrison, H. T., and Campbell, G., electric battery, (P.), B., 116.
- Harrison, L. B., super-chlorination of [water to remove] chlorophenol tastes, B., 381.
- Harrison, W., manufacture of wool-like cellulosic material, (P.), B., 473.
- production of carbohydrate compounds, (P.), B., 552.
- Harrison, W. N., and Wolfram, H. G., effects of composition on the properties of ground-coat enamels for sheet steel, B., 779.
- Harrison, W. R., and Perman, E. P., vapour pressure and heat of dilution of aqueous solutions. II. and III., A., 207.
- Harrison, F. J., and Drake, J. W., apparatus for receiving coke discharged from retorts used in gas manufacture, (P.), B., 517.
- Harrow, B., and Sherwin, C. P., synthesis of amino-acids in the animal body. IV. Synthesis of histidine, A., 72.
- Harsch, J. W. See Leeds & Northrup Co., and Vogt, C. C.
- Hart, B., manufacture of ferric sulphate, (P.), B., 842*.
- Hart, B., Harris, Hart & Co., and Refiners, Ltd., manufacture of ferric sulphate, (P.), B., 653.
- Hart, E. B., Elvehjem, C. A., Waddell, J., and Herrin, R. C., iron in nutrition. IV. Correction of nutritional anemia with ash of plants and animal tissues and with soluble iron salts, A., 478.
- Hart, E. B., Steenbock, H., Kletzien, S. W., and Scott, H., diet and assimilation of calcium. IX. Influence of cod-liver oil on calcium assimilation in lactating animals, A., 275.
- Hart, E. B., Steenbock, H., Scott, H., and Humphrey, G. C., diet and assimilation of calcium. VIII. Calcium level and sunlight as affecting calcium equilibrium in milking cows, A., 275.
- diet and assimilation of calcium. X. Influence of ultra-violet light on calcium and phosphorus metabolism in milking cows, A., 695.
- Hart, E. B. See also Elvehjem, C. A.
- Hart, L. R. See Fargher, R. G.
- Hart, M. C., and Heyl, F. W., chemistry of corpus luteum. VI. Lipins of ether extract. VII. Kephalin fraction, A., 69.
- ovary. XII. Fatty acids of lecithin from corpus luteum, A., 477.
- Hart, M. C. See also Tourtelotte, D.
- "Hart" Accumulator Co., Ltd., and Hardy, C. R., [suspension for plates in] secondary electric batteries, (P.), B., 450.
- Hartack. See Bodenstein, M.
- Hartel, H. von, existence and preparation of methyl ortho-carbonate, A., 1054.
- Harteneck, A. See Felix, A.
- Hartford, F. M., application of powdered coal as a tunnel-kiln fuel firing hard-fired common brick, B., 410.
- Hartford-Empire Co., apparatus for forming sheet glass, (P.) B., 76.
- forming sheet glass, (P.), B., 141.
- lehrs for annealing glassware, (P.), B., 221.
- methods of and apparatus for forming sheet glass, (P.), B., 221, 333.
- Hartford-Empire Co., and Ingle, H. W., glass-annealing lehrs, (P.), B., 253.
- Hartford-Empire Co., and Mulholland, V., annealing of glassware, (P.), B., 221.
- Hartleb, E. See Hahn, F. L.
- Hartley, H., and Bell, R. P., Debye-Hückel theory, A., 1032.

- Hartley, H., and Raikes, H. R., mobilities of the elementary ions in methyl alcohol, A., 1032.
- Hartley, H. See also Davies, H.
- Hartley, (Sir) H. B. See Wolfenden, J. H.
- Hartley, H. J., attack of molten metals on non-ferrous metals and alloys, B., 279.
- Hartley, H. J., Fowler, E. J., Baird, D., and Nichols Copper Co., roasting furnace, (P.), B., 784.
- Hartman, E. W., and Hartman Interests, Inc., annular hearth oven, (P.), B., 133.
- Hartman Interests, Inc. See Hartman, E. W.
- Hartmann, B. G., and Hillig, F., influence of pepsic digestion in the determination of total carbohydrates in cereal products, B., 90.
- application of the Stahre reaction to the accurate determination of citric acid, B., 540.
- Hartmann, C. A. See Siemens & Halske A.-G.
- Hartmann, F., determination of the attack of slag and fluo dust on refractories, B., 221.
- Hartmann, H., dicyclohexyl derivatives, A., 455.
- Hartmann, J. See Abderhalden, E.
- Hartmann, K. See Firgau, H.
- Hartmann, M., Kägi, H., and Society of Chemical Industry in Basle, manufacture of emulsion of medicaments soluble in oil, (P.), B., 173*.
- Hartmann, M., Seiberth, M., and Society of Chemical Industry in Basle, manufacture of pyridine-3-carboxylic acid amides, (P.), B., 237*.
- Hartmann, M., and Society of Chemical Industry in Basle, manufacture of physiologically-active substances from ovaries, corpus luteum, and placenta, (P.), B., 734*.
- Hartmann, M. L., and King, J. A., silicon carbide refractories for water-gas generators, B., 332.
- Hartridge, H., and Roughton, F. J. W., rate of distribution of dissolved gases between the red blood corpuscle and its fluid environment. I. Rate of uptake of oxygen and carbon monoxide by sheep's corpuscles, A., 167.
- Hartshorne, N. H., clip for securing paper covers on funnels and beakers, A., 224.
- system ferric oxide-arsenic acid-water at low concentrations of arsenic acid, A., 940.
- Hartshorne, N. H., and Spencer, J. F., removal of oxygen from commercial carbon dioxide, B., 42.
- Hartshorne, N. H. See also Dawson, T. R.
- Hartstoff Metall A.-G. (Hametag). See Kramer, E.
- Hartwell, F. J. See Georgeson, E. H. M.
- Hartwell, G. A., growth and reproduction on synthetic diets. I. and II., A., 72, 1107.
- yeast extract as a supplement to gelatin, A., 72.
- dietary value of potato protein, A., 480.
- Hartwell, G. A. See also Bacharach, A. L.
- Hartwich, C. See Beythien, A.
- Harvey, D., report on metallic materials for electrical heating; [analysis of nickel-chromium and nickel-chromium-iron alloys], B., 879.
- Harvey, E. N., oxidation-reduction potential of the luciferin-oxy-luciferin system, A., 277.
- quanta of light produced and the molecules of oxygen utilised during *Cypridina* luminescence, A., 901.
- Harvey, E. W., ammonium salt [sulphate for fertiliser], (P.), B., 88.
- Harvey, J., Heilbron, I. M., and Kamm, E. D., unsaponifiable matter from the oils of elasmobranch fish. III. Tetracyclosqualene and the production of a new naphthalene hydrocarbon, A., 130.
- Harvey, J. M. See Olmsted, J. M. D.
- Harvey, P. P. See Holford, H. J.
- Harvey, R. B. See Regeimbal, L. O.
- Harvey, R. J., and Nettle, W. H. V., difficulties associated with blende roasting in conjunction with sulphuric acid manufacture, B., 249.
- Harwood, H. J. See Kinney, C. R.
- Hasche, L., Póányi, M., and Vogt, E., intensity distribution in the D-line of the chemiluminescence of sodium vapour, A., 396.
- Hase, R., optical pyrometer, (P.), B., 592.
- Haselhoff, E., action of potash fertilisers containing magnesium, B., 394.
- Haselhoff, E., and Elbert, W., [plant] stimulants, B., 791.
- Hasenbäumer, G., and Balks, R., relation between the "citric soluble" and "root soluble" nutrients in soils, B., 343.
- Hasenfratz, V., preparation and properties of arabono- and ribono-lactones, A., 229.
- harmaline and harmine, A., 682.
- Hashimoto, T., [chaulmoogra oil]. I., A., 541.
- Hashitani, Y., yeast-gum, B., 567.
- Haskes, I. S. See Gapon, E. N.
- Haslam, G. S. See Green, H.
- Haslam, J. K. See Burton, D.
- Haslam, R. T., and Boyer, M. W., radiation from luminous flames, B., 179.
- Haslam, R. T., and Frolich, P. K., deterioration of mineral oils. I. Mechanism of oxidation and action of negative catalysts as determined by a dynamic method, B., 355.
- Haslam, R. T., Mackie, R. F., and Reed, F. H., reactions in the fuel bed of a gas producer. II. Effect of depth of fuel bed and rate of firing, B., 624.
- Haslam, R. T., Ward, J. T., and Mackie, R. F., reactions in the fuel bed of a gas producer. III. Effect of steam-coal ratio, B., 624.
- Haslam, R. T. See also Thiele, E. W.
- Haslwanter, F. See Brunner, K.
- Hassack, P. See Noldin, F.
- Hassan, A., and Drummond, J. C., physiological rôle of vitamin-B. IV. Relation of certain dietary factors in yeast to growth of rats on diets rich in proteins, A., 702.
- Hassan, S. M. See also Hibbert, H.
- Hassé, H. R., and Cook, W. R., viscosity of a gas composed of Sutherland molecules of a particular type, A., 616.
- Hassel, K., distillation of oil-chalk in a current of heated gas, B., 161.
- Hassel, O., crystal structure of a few compounds of the general formula MG_2LR_2 , A., 503.
- Hassel, O., and Salvesen, J. R., crystal structure of heteropolar compounds of the composition MG_2LR_2 , MG_2D-LR_2 , and $MG_2D_2-LR_2$ which crystallise in the trigonal system, A., 1014.
- Hassel, O. See also Böhm, J., and Schönfeldt, N.
- Hastings, A. B., Murray, C. D., and Sendroy, J., jun., solubility of calcium salts. I. Solubility of calcium carbonate in salt solutions and biological fluids, A., 416.
- Hastings, A. B., Salvesen, H. A., Sendroy, J., jun., and Van Slyke, D. D., gas and electrolyte equilibria in the blood. IX. Distribution of electrolytes between transudates and serum, A., 476.
- Hastings, A. B. See also Sendroy, J., jun.
- Hastings, E. G., Fred, E. B., and Peterson, W. H., Kjeldahl digestion apparatus, A., 438.
- Hastings, J. J. H., Pyman, F. L., and Walker, T. K., preservative principles of hops. VII., B., 24.
- Hatcher, E. C., filters, (P.), B., 639.
- Hatcher, H., oxidation [of organic compounds], A., 448.
- Hatcher, R. A., and Gold, H., [pharmacology of] quinine, A., 376.
- Hatcher, R. A. See also Weiss, S.
- Hatcher, W. H., and Holden, G. W., hydrogen peroxide as an oxidising agent in acid solution. IV. and VI., A., 425.
- Hatcher, W. H., Holden, G. W., and Toole, F. J., hydrogen peroxide as an oxidising agent in acid solution, A., 425.
- Hatcher, W. H., and Toole, F. J., hydrogen peroxide as an oxidising agent in acid solution, A., 425.
- Hatfield, A. E., and Achille Serre, Ltd., dry cleaning, (P.), B., 579.
- Hatfield, A. E. See also Alliot, E. A.
- Hatfield, H. S., means for effecting the chemical analysis of liquids, (P.), B., 207, 832*.
- Hatfield, W. H., heat-resisting steels, B., 445.
- Hatfield, W. H., and Green, H., treatment [colouring] of the surfaces of stainless or rustless steels or irons, (P.), B., 783.
- Hatmaker, J. R., manufacture of condensed milk, (P.), B., 457*.
- Hatschek, E., graphical method for the construction of the viscosity-shear gradient curve, A., 201.
- apparent viscosity of colloidal solutions, A., 412.
- rigidity and other anomalies in colloidal solutions, A., 1024.
- early experiments on ultra-filtration, A., 1049.
- Hatt, H. H. See Boyd, D. R.
- Hattori, S., synthesis of flavones and flavonols, A., 883.
- Haufe, W., effect of silicon, nickel, chromium, and tungsten on the hardening of tool steel, B., 751.
- Haugaard, G. See Koeford, R.
- Hauge, S. M., and Willaman, J. J., effect of pH on adsorption by carbon, A., 929.
- Hauge, T. See Vegard, L.
- Haugen, C. O. See Talbert, G. A.

- Haughton, J. L., alloys of iron research. VIII. Constitution of alloys of iron and phosphorus, B., 445.
- Haugwitz, R. See I. G. Farbenind. A.-G.
- Hauptstein, P., activity of heart-specific glucosides of the second order, A., 1219.
- Haupt, H., preparation of powdery fertiliser from activated sludge in Milwaukee, B., 30.
- Haupt, H., and Popp, G., use of opacifying media containing antimony in the enamel industry, B., 411.
- Haurowitz, F., partial hydrolysis of globin, A., 166.
- blood pigments. V. Relation of hæmatin to hæmochromogen, A., 686.
- blood pigments. VII. Behaviour of prosthetic groups in different solvents, A., 1099.
- blood pigments. VI. Relation between hæmin, hæmochromogen, and porphyrin, A., 1100.
- Haurowitz, F., and Waelsch, H., chemical composition of the jellyfish *Veella spirans*, A., 169.
- comparative chemical investigation of *Holothuria* and *Actinia*, A., 169.
- Hausmann, H. See Schrauth, W.
- Hauschild, P., influence of soil treatment on the assimilability of nutrients, in the seedling method of Neubauer, B., 917.
- Hauser, E. A., revertex process, B., 148.
- rubber latex concentration and industrial application of concentrated latices, B., 148.
- what is rubber? B., 148.
- new hypothesis of rubber structure based on recent X-ray researches, B., 148.
- Hauser, E. A., Hünemörder, M., and Rosbaud, P., recent röntgenographic researches on rubber and related substances, B., 789.
- Hauser, E. A., and Rosbaud, P., X-ray studies on rubber and similar substances, B., 148.
- Hauser, E. A., and Scholz, P., colloid chemistry of rubber latices; determination of actual and potential alkalinity of latex from *Hevea brasiliensis*, B., 947.
- Hauser, W. See Hölzl, F.
- Hausheer, E., finishing, mercerising, and ornamenting textiles, (P.), B., 520.
- Hausmann, W., and Krumpel, O., absorption in the ultra-violet by porphyrins, A., 893.
- Hausner, J., determination of available chlorine in bleach-liquor, B., 521.
- simple method for determination of active chlorine [in bleach liquor], B., 875.
- Hausser, J. See Chuit, P.
- Hausser, K. W., and Scholz, P., metal single crystals, A., 613.
- Hausser, A. See Boehringer Sohn, C. H.
- Hauts Fourneaux & Acieries de Differdange-St. Ingbert-Rumelange Société Anonyme, and Lavandier, E., calcination of limestone and the like in vertical kilns fired with lean gas, (P.), B., 556.
- Havelock, T. H., ionic refractivity and the scattering of light by gases, A., 189.
- refractivity of some anisotropic molecules, A., 294.
- Haverstick, E. J. See Slepian, J.
- Havighurst, R. J., intensity of reflexion of X-rays by powdered crystals. I. Sodium chloride, and sodium, lithium, and calcium fluorides. II. Effect of crystal size, A., 95.
- electron distribution in the atoms of crystals; sodium chloride and lithium, sodium, and calcium fluorides, A., 191.
- Hawes, C. C., rapid method for the determination of sulphur in iron ores, B., 939.
- Hawk, C. O. See Yant, W. P.
- Hawke, C. E. See Carborundum Co., Ltd.
- Hawkes, H. J., Portland cement; improvements in manufacturing processes and quality, B., 253.
- Hawking, F., synthesis of the antineuritic factor (torulin) by yeast, A., 796.
- Hawkins, C., oil-fired furnace, (P.), B., 65*.
- Hawkins, F. S., and Parlington, J. R., determination of potassium in presence of iodide, A., 745.
- Hawkins, L. A. See Barger, W. R.
- Hawkyard, A. See Barrow, Hepburn, & Gale, Ltd.
- Hawley, C. G., separation [of suspended matter from fluids] and apparatus therefor, (P.), B., 1.
- Hawley, L. F., and Campbell, W. G., effect of partial hydrolysis on the alkali solubility of wood, B., 518.
- Hawley, L. F., and Fleck, L. C., hydrolysis number determination for wood cellulose, B., 598.
- Hawley, W. G., and Merrell-Soule Co., treatment of milk powder [for packing], (P.), B., 763.
- Hawlik, H., manufacture of artificial filaments, film bands, and the like from viscose, (P.), B., 103.
- Haworth, F. E. See Bozorth, R. M.
- Haworth, R. D., 5:6-dimethoxy-2-methyl-1:2:3:4-tetrahydroisoquinoline and its derivatives, A., 1088.
- Haworth, R. D., Köpff, J. B., and Perkin, W. H., jun., synthesis of oxyberberine and palmatine, A., 472.
- conversion of palmatine into its cryptopine analogue (cryptopalmatine), A., 1096.
- Haworth, R. D., and Pink, H. S., derivatives of 2:3:5:6-dibenzo-1:8-naphthyridine, A., 1089.
- Haworth, R. D. See also Chakravarti, S. N.
- Haworth, W. N., Hirst, E. L., and Jones, D. I., ring structure in normal galactose; oxidation of tetramethyl- δ -galactonolactone, A., 1173.
- Haworth, W. N., Hirst, E. L., and Learner, A., structure of normal fructose: crystalline tetramethyl β -methylfructoside and crystalline tetramethylfructose (1:3:4:5), A., 649.
- 1:3:4:6-tetramethyl- γ -fructose and 2:3:5-trimethyl- γ -arabinose; oxidation of *d*- and *l*-trimethyl- γ -arabonolactone, A., 1173.
- Haworth, W. N., Hirst, E. L., and Miller, E. J., structure of the normal and γ -forms of tetramethylglucose; oxidation of tetramethyl- δ - and - γ -gluconolactones, A., 1173.
- Haworth, W. N., Hirst, E. L., and Nicholson, V. S., constitution of the disaccharides. XIII. The γ -fructose residue in sucrose, A., 859.
- Haworth, W. N., and Jones, D. I., new reference compounds in the sugar group; methylamides of *d*-, *l*-, and *i*-dimethoxysuccinic acids and of *l*-arabo- and *i*-xylo-trimethoxyglutaric acids, A., 1059.
- Haworth, W. N., and Long, C. W., constitution of the disaccharides. XII. Lactose, A., 450.
- Haworth, W. N., and Peat, S., constitution of the disaccharides. XI. Maltose, A., 135.
- Haworth, W. N. See also Allpress, C. F., Avery, John, Charlton, W., and Drew, H. D. K.
- Hawthorne, H. S. See Cannon Iron Founders, Ltd.
- Hayashi, M., isomerism of halogenohydroxybenzoyltoluic acids, A., 1187.
- Hayashi, T. See Kondo, K.
- Hayde, S. J., and American Aggregate Co., preparing a material suitable for use in the manufacture of moulded articles, (P.), B., 343*.
- Hayden, H. P. See Forrest, C. N.
- Hayek, E. See Klemenc, A.
- Hayes, A. See Brodie, G. H., Canfield, J. J., and Evans, H. P.
- Hayes, J. W. See Smith, O.
- Hayner, J. H. See Bouton, C. M.
- Haynes, P. E., manufacture of carbon dioxide, (P.), B., 188.
- Haynes, P. E. See also Elkin, S. E.
- Haynes, R., thiazine dyes as biological stains. I. Staining properties of thionine and its derivatives as compared with their chemical structures, A., 281.
- Haynes Stellite Co. See Field, B. E., and Wissler, W. A.
- Haynn, R. See Cassella & Co., L.
- Haythornthwaite, A., and May & Baker, Ltd., manufacture of solutions of bismuth salts of arylarsinic acids, (P.), B., 392.
- Hazeldon, J. N., distillation plant [for coal tar], (P.), B., 469.
- Hazeley, E. See Courtaulds, Ltd.
- Hazell, E. See Gibbons, W. A.
- Hazeltine Corporation. See Holborn, F., and Miller, H.
- Hazlehurst, A. N., electric battery, (P.), B., 882.
- Health Products Corporation, and Court, A. H., laxative chewing gum, (P.), B., 268.
- Healy, A. T. See Farmer, E. H.
- Healy, W. See Langman, (Miss) E. M.
- Heany, J. A., incandescence electric lamp, (P.), B., 727.
- Heap, A. G. See Buehler, C. A.
- Heap, T., Jones, T. G. H., and Robinson, R., displacement of bromine accompanying the nitration of 6-bromohomoveratrole, A., 968.
- Heaps, C. W., Hall effect in bismuth with small magnetic fields, A., 289.
- Hall effect in a bismuth crystal, A., 817.
- photomagnetic effect in silver chloride and in selenium, A., 1131.
- Hearn, J. E. See Wilcox, H. B.
- Heaven, G. S. See Courtaulds, Ltd.

- Heberlein, K. B., manufacture of stannic acid or oxides of tin, (P.), B., 107.
treatment [precipitation] of cellulose, (P.), B., 296, 474*.
- Heberlein, R. See Briner, E.
- Heberlein & Co., Akt.-Ges., process for chemically varying vegetable fibres, (P.), B., 103.
production of patterned weaving effects, (P.), B., 361.
process for chemically varying artificial silk, (P.), B., 473.
improving vegetable fibres, (P.), B., 475.
method of chemically varying artificial fibres, (P.), B., 552.
chemically varying vegetable or artificial fibres, (P.), B., 746, 811.
- Hébert, J., rational use of case-hardening compounds; systematic case-hardening tests, B., 278.
- Hebler, F., determination of dispersion of protected metal sols, A., 934.
resin oils as softening agents [for rubber], B., 119.
covering power [of pigments] and degree of dispersion, B., 451.
vanadium compounds as driers, B., 635.
reduction of the swelling capacity of artificial products from cellulose and its derivatives, (P.), B., 811.
- Hebler, F. See also Stutchbury, M. S.
- Hechenbleikner, I., precipitating apparatus, (P.), B., 47.
- Hechenbleikner, I., Oliver, T. C., and Chemical Construction Co., furnace, (P.), B., 63.
- Heck, A. F., and Whiting, A. L., assimilation of phosphorus from phytin by red clover, B., 663.
- Heck, A. F. See also Whiting, A. L.
- Heckel, H., and Adams, R., cyclic alkamine esters of *p*-aminobenzoic acid. II., A., 662.
- Heckendorn, A. See Rupe, H.
- Heckert, H. D., preserving wood, (P.), B., 13.
- Heckscher, H., nephelometric determination of neutral fat + cholesterol of the blood by Bing and Heckscher's method, A., 370.
- Heckscher, R. See Kuhn, R.
- Hector, F. J., carbohydrate metabolism in diphtheria, A., 587.
- Heczko, T., potassium permanganate as an acidimetric standard, A., 848.
- Hedenburg, O. F., and Gletcher, L. H., preparation of crystalline *d*-talonic acid, A., 340.
- Hedenburg, O. F., Pratt, D. S., and Toledo Rex Spray Co., insecticide composition, (P.), B., 536.
- Hedges, E. S., periodic electrochemical passivity of iron, cobalt, nickel, and aluminium, A., 25.
periodic electrodeposition of metals through secondary reaction, A., 630.
- Hedges, J. J., fastness to light of dyestuffs on woollen and worsted fabrics. II. Atmospheric humidity and the fading of dyestuffs, B., 811.
- Hedvall, J. A., reactions between solids, A., 620.
- Hée, A., respiratory intensity of *Aspergillus niger* during development, A., 279.
- Heel, A. C. S. van, absorption spectrum of chromium oxychloride, A., 496.
- Hegan, H. J. See Courtaulds, Ltd.
- Heid, J. L., rate of conversion of naphthalene-2 : 7-disulphonic acid into the isomeric 2 : 6-acid at 160° in presence of sulphuric acid, A., 454.
- Heide, C. von der, and Föllén, R., "mikrobin" [sodium *p*-chlorobenzoate as food preservative], B., 795.
- Heidelberger, M., and Goebel, W. F., soluble specific substance of *Pneumococcus*. IV. Nature of specific polysaccharide of type III *Pneumococcus*, A., 77.
soluble specific substance of *Pneumococcus*. V. Aldobionic acid from specific polysaccharide of type III *Pneumococcus*, A., 1114.
- Heidrich, (Frl.) D. See Biltz, H.
- Heiduschka, A., and Meisner, N. I., microchemical detection of alkaloids. II., A., 785.
- Heiduschka, A., and Muth, F., nicotine in tobacco, B., 570.
- Heiduschka, A., and Pyriki, C., myrosin and sinigrin, A., 386.
detection of fruit wine in grape wine, B., 264, 686.
- Heiduschka, A., and Tettenborn, H., galactoaraban of lupin seeds, A., 1226.
- Heike, W., and Westerholt, F., behaviour of bronze in cellulose bleach liquors, B., 656.
- Heil, A., galvanic cell, (P.), B., 338, 659, 944.
dry cell, (P.), B., 850.
- Heilbron, I. M., Hilditch, T. P., and Kamm, E. D., unsaponifiable matter from the oils of clasmobranch fish. II. Hydrogenation of squalene in the presence of nickel, A., 130.
- Heilbron, I. M., and Hill, D. W., preparation of 4-hydroxycoumarin derivatives, A., 974.
coumarin series. I. Action of the Grignard reagent on substituted coumarins, A., 1082.
- Heilbron, I. M., and Hill, Rowland, interaction of ethyl acetoacetate with distyryl ketones. III. Chloro-*o*-hydroxydistyryl ketones, A., 565.
- Heilbron, I. M., Kamm, E. D., and Morton, R. A., absorption spectrum of cholesterol and its biological significance with reference to vitamin-D. I., A., 381.
absorption bands of ergosterol and vitamin-D., A., 1123.
- Heilbron, I. M. See also Dickinson, R., Harvey, J., Morton, R. A., and Ormandy, W. R.
- Heiler, C. B. See Sagstetter, K.
- Heimke, P. See Auwers, K. von.
- Hein, F., one-way safety valves for vacuum pumps and gas generating apparatus, A., 1049.
- Hein, F., and Meyer, A., determination of phenylacetylene, A., 1100.
- Hein, F., Reschke, J., and Pintus, F., mechanism of the reaction between chromic chloride or chromous chloride and magnesium phenyl bromide; univalent chromium, A., 548.
relationship between complex-constitution and formation of organo-metallic derivatives in the case of chromium salts, A., 549.
- Hein, F., and Segitz, F. A., metal alkyls, A., 138.
determination of tetrapropylammonium ions as tetrapropylammonium diamminochromithiocyanate, $\text{NPr}_4[(\text{SCN})_2\text{Cr}(\text{NH}_3)_2]$, A., 1175.
- Heinekens' Bierbrouwerij Maatschappij, prevention of haze in pasteurised beer, (P.), B., 856.
- Heinicke, H., and Jung, P., apparatus for ascertaining the composition of gaseous mixtures, (P.), B., 863*.
- Heinrich, R., application of coloured pigments in suspension in gelatin or glue solutions by means of sprays, (P.), B., 419.
- Heinrich, R. See also Siemens-Schuckertwerke G.m.b.H.
- Heinrichs, H., determination of sulphur present as sulphide in glass, B., 907.
- Heinrichs, H., and Salaquarda, F., valency of arsenic and antimony in glass, B., 189.
- Heinz, A. See Darzens, G.
- Heinz Co., H. J., and Harding, E. R., preparing flaked cereal food products, (P.), B., 58.
- Heinze, F. See I. G. Farbenind. A.-G.
- Heinzel, A. See Tammann, G.
- Heise, G. W., and National Carbon Co., Inc., depolarising composition [for dry cells], (P.), B., 82.
- Heisel, P. See Fischer, Hans.
- Heisenberg, E. See Bodenstein, M.
- Heisenberg, W., spectra of atomic systems with two electrons, A., 5.
quantum mechanics of multi-charged atoms and resonance, A., 290.
- Heitler, W., free path and quantising of molecular translations, A., 915.
- Heitler, W., and London, F., wave mechanics of neutral atoms and homopolar linkings, A., 923.
- Heitmann, M. J., emulsified solid grease, (P.), B., 549*.
production of lubricants containing water, (P.), B., 695.
- Helbig, A. B., powdered fuel furnaces, (P.), B., 696.
- Helbig, F., method of heating furnaces, (P.), B., 352*.
- Helbig, M. See Chemische Fabrik Wolkramshausen G.m.b.H.
- Held, E. F. M. van der, and Baars, B., similarities in the darkening of photographic plates at various exposures, A., 1154.
- Helderman, W. D., sucrose, A., 1174.
- Hele, T. S. See Callow, E. H., and Coombs, H. I.
- Hele-Shaw, H. S., and Beale, A., separation of liquids, (P.), B., 1.
- Hele-Shaw, H. S., and Pickard, J. A., filtration; [separation of liquids], (P.), B., 287.
- Helfenstein, A. See Karrer, P.
- Helferich, B., and Bredereck, H., *d*-glucose- ζ -chlorohydrin and its derivatives, A., 1056.
- Helferich, B., Bredereck, H., and Schneidmüller, A., acyl wandering in partly acylated methylglucosides, A., 1174.
- Helferich, B., and Klein, Wilhelm, sugar syntheses. IV. Two β -*d*-glucose tetra-acetates, A., 135.
acyl wandering, A., 858.
- Helferich, B., and Rauch, H., sugar syntheses. VI. β -*d*-Galactosido- α -glucose; constitution of melibiose, A., 44.
sugar syntheses. VII. Synthesis of primeverose, A., 859.

- Helferich, B., and Schäfer, W., sugar syntheses. V. Synthesis of trisaccharides, A., 136.
- Helferich, B., and Schneidmüller, A., transformation of a β -glucoside into an α -glucoside, A., 1057.
- Heller, E., vacuum evaporator, (P.), B., 207.
- Heller, G., and Herrmann, H., agnotobenzaldehyde, A., 563.
- Heller, G., and Schütze, E., isomerism of anilino-*m*-nitrophenyl-acetonitrile. II., A., 559.
- Heller, G., and Siller, A., quinoxalones from acylated *o*-amino-benzhydrazides. II. [Carbalkoxyl derivatives]; action of nitrous acid on *o*-aminobenzhydrazide, A., 676.
- Heller, H. See Raudnitz.
- Heller, K., and Meyer, K., use of filtering-rods in Pregl's micro-analysis, A., 637.
- Heller, O. See Bamag-Meguín A.-G.
- Heller, V. G., and Burke, A. D., toxicity of zinc, A., 900.
- Heller & Co., B. See Alsberg, J.
- Hellerman, L., preparation of $\beta\beta\beta$ -triphenylethylamine; rearrangement of $\beta\beta\beta$ -triphenylpropionhydroxamic acid, A., 875.
- Hellerman, L., and Sanders, A. G., oxidation of compounds containing the primary amino-group. I. Diphenylmethylamine, A., 868.
- Hellmann, H., and Zahn, H., dielectric constant of solutions of good conducting electrolytes. II., A., 7.
- Hellmers, practical value of soil experiments, B., 791.
- Hellmers, and Potonié, so-called "algæ" of boghead coal, B., 736.
- Hellström, H. See Euler, H. von.
- Hellström, S. See Tillberg, E. W.
- Hellthaler, T., and Stinnes-Riebeck Montan- & Ölwerke A.-G., H., process of refining mineral oils, (P.), B., 836*, 868*.
- Helmholtz, A. W. See Farrell, D.
- Hemmelmayer, F., and Strehly, J., scoparin, A., 248.
- Hemmer, A. J. See Orndorff, W. R.
- Hempel, H. See Vorländer, D.
- Henderson, E. See Normand, A. R.
- Henderson, G. G., McNab, W., and Robertson, J. M., constituents of oil of supa; new natural source of copene, B., 172.
- Henderson, G. G., and Robertson, J. M., cadinene. II. Compounds related to cadinene, A., 250.
- Henderson, H. See Prichard, G. L.
- Henderson, L. J., Bock, A. V., Dill, D. B., Hurxthal, L. M., and Caulat, C. van, blood as a physico-chemical system. VI. Terminal chronic nephritis, A., 1217.
- Henderson, L. J. See also Bock, A. V., and Dill, D. B.
- Henderson, L. M., and Cowles, H. C., jun., measurement of bloom of lubricating oils, B., 624.
- Henderson, L. M., and Ferris, S. W., determination of paraffin wax in crude wax, B., 355.
- Henderson, L. M., and Kracek, F. C., fractional precipitation of barium and radium chromates, A., 431.
- Henderson, L. M. See also Hill, J. B.
- Henderson, V. E. See Brown, W. E.
- Henderson, W. F., and Dietrich, H. E., cellulose sausage casings, B., 57.
- Henderson, Y. See Bröcklehurst, R. J.
- Hendricks, S. B., crystal structure of potassium dihydrogen phosphate, A., 1013.
- Hendricks, S. B., and Bilicke, C., space-group and molecular symmetry of β -benzene hexabromide and hexachloride, A., 98.
- Hendricks, S. B., and Dickinson, R. G., crystal structures of ammonium, potassium, and rubidium cupricchloride dihydrates, A., 1013.
- Hendricks, S. B., and Wyckoff, R. W. G., positions of the K-absorption limits of vanadium in various of its compounds, A., 603.
- space-group of aluminium metaphosphate, A., 715.
- Hendricks, S. B. See also Wyckoff, R. W. G.
- Hendrickson, H. H., and Grand Central Mining Co., preparation of [low-grade lead] ores for flotation, (P.), B., 370.
- Hengstenberg, J., X-ray investigations on the structure of formaldehyde polymerisation products, A., 1129.
- Hengstenberg, J. See also Standinger, H.
- Henke, C. O. See Madenwald, F. A.
- Henke, R. See Weissenberger, G.
- Henke, T. A., ternary system sodium chloride-platinum chloride-water at 25°, A., 731.
- Henke, T. A. See also Bergman, A. G.
- Henle, F. See I. G. Farbenind. A.-G.
- Henley, F. R. See Harden, A.
- Henne, A., and Clark, G. L., spectrography of flames in a combustion engine, B., 131.
- Henne, A. See also Clark, G. L.
- Hennebute, H., and Goutal, E., apparatus for carbonising wood, (P.), B., 35.
- Hennecke, R., [production of steel by] carbonising scrap iron, B., 525.
- Henning, C. See Loos, K.
- Henning, F., vapour pressure and resistance thermometers in the region of liquid nitrogen and liquid hydrogen, A., 194.
- Henri, V., and Wurmser, R., elementary mechanism of photo-chemical reactions, A., 946.
- Henrich, F., and Herold, W., examination of naturally occurring gases. V., A., 1160.
- Henrich, F., and Herold, W., examination of naturally occurring dyes and other compounds from 2:6-dihydroxytoluene, A., 1183.
- Henrici, A. T. See Starkey, R. L.
- Henriques, V., and Roche, A., iron in the blood-serum of different animal species, A., 689.
- Henriques, V., and Roche, (Mme.) A., determination of iron in muscle by means of titanium chloride, A., 787.
- Henry, I. W., manufacture of benzol and like aromatic hydrocarbons, (P.), B., 357.
- ionising retort [for gasifying hydrocarbons, etc.], (P.), B., 392.
- Henry, T. A., and Sharp, T. M., alkaloids of *Picralima Klaineana*, A., 982.
- Henshaw, D. M., [valves for] condensers for use in the recovery of by-products arising in the carbonisation of coal and the like, (P.), B., 549.
- Henshaw, D. M., Watson, S. G., and Holmes & Co., W. C., treatment of gases by the employment of solid catalytic and other reactive agents, (P.), B., 867.
- Henshaw, D. M. See also Cooper, C., Holmes, P. F., and Holmes & Co., W. C.
- Henshilwood, A. B. See Broughton, F., and Whitehead, P. K.
- Hensinger, W. See Oberhauser, F.
- Hentrich, W. See Duisberg, W., and I. G. Farbenind. A.-G.
- Hentschel, H. See Embden, G., and Müller, Erich.
- Henville, D., analysis of sodium salicylate and sodium benzoate, B., 315.
- Henwood, A., and Garey, R. M., preparation of hydrogen sulphide, (P.), B., 440.
- Henze, M., existence of "pinnaglobin," A., 167.
- Hepburn, H. C., electro-endosmosis and electrolytic water transport, A., 422.
- Hepburn, J. R. I., determination of carbon dioxide in carbonates, B., 42.
- Hepburn, J. S., North American *Sarraceniaceæ*; nectar; bibliography, A., 1226.
- Hepburn, J. S., and Jones, F. M., North American *Sarraceniaceæ*; enzymes of the pitcher liquor; chemistry of pitcher liquor, A., 1226.
- Hepburn, J. S., and Katz, A. B., chemistry of the [fat of] edible domestic birds, B., 705.
- Hepburn, J. S., and St. John, E. Q., North American *Sarraceniaceæ*; bacteriology of pitcher liquor; composition of tissues, A., 1226.
- Hepburn, J. S., St. John, E. Q., and Jones, F. M., North American *Sarraceniaceæ*; absorption of nutrients in the pitchers, A., 1226.
- Hepburn, J. S. See also Jones, F. M.
- Hepke, K., preparation of potassium sulphate by Hargreaves' process, B., 478.
- Hepper, J., and Wagner, O., insulin and fat metabolism, A., 1222.
- Heppner, R., increasing the safety of porous and absorbent materials used for storing explosive combustion gases [e.g., acetylene], (P.), B., 805.
- "Hera" Landsberger & Co., and Verein Chemische Fabrik zu Leopoldshall, Zweigstelle der Kaliwerke Aschersleben, granular material for purifying acetylene, (P.), B., 960.
- Heraeus G.m.b.H., W. C., and Feusznor, O., thermo-couples and thermo-elements, (P.), B., 226.
- Heraeus G.m.b.H., W. C., and Haagn, E., platinum metal alloys for tipping the nibs of fountain pens, (P.), B., 633.
- Heraeus-Vacuumschmelze Akt.-Ges. See Siemens-Schuckertwerke G.m.b.H.
- Herasymenko, P., overvoltage in alkaline solution, A., 1145.
- Herbener, W. See Answers, K. von.
- Herbert, E. G., work-hardening of steel by abrasion, B., 968.
- Herbst, H., apparatus for determining the softening point of paraffin and other waxes, pitches, etc., B., 244, 769.

- Hercules Powder Co., manufacture of high-grade rosins, (P.), B., 822.
- Hercules Powder Co., and Smith, *L. T.*, method of reclaiming rubber and fabric from scrap, (P.), B., 917.
- Hercules Powder Co. See also Shapleigh, *J. H.*, Speicher, *J. K.*, and Symmes, *E. M.*
- Hercus, *E. O.*, and Laby, *T. H.*, thermal conductivity of gases, A., 614.
- Herd, *C. W.*, determination of the neutralising value of acid calcium phosphate [in baking powder], B., 875.
- determination of fat content of flour and milling stocks, B., 889.
- Herd, *C. W.* See also Kent-Jones, *D. W.*
- Herfeldt, *G.*, production of silicates, (P.), B., 907.
- Heringa, *G. C.*, and Kolmeijer, *N. H.*, physico-chemical structure of the collagenic substance. III. X-Ray investigation, A., 203.
- Heringa, *G. C.*, and Lohr, (*Miss*) *H. A.*, physico-chemical structure of the collagenic substance. I. Spiral arrangement and hygroscopic torsion of collagenic bundles of tendons, A., 203.
- Heringa, *G. C.*, and Minnaert, *M.*, physico-chemical structure of the collagenic substance. II. An optical phenomenon, A., 203.
- Hérissey, *H.*, rubichloric acid and asperuloside, A., 386.
- extraction of asperuloside from *Gallium verum*, L.; probable presence of the glucoside in *Rubiaceae*, A., 1116.
- Hérissey, *H.*, and Cheymol, *J.*, constitution of gcin (geoside), A., 136.
- Herlinger, *H. V.* See Beebe, *M. C.*
- Herman, *J.*, Allen, *A. W.*, and Newitt, *H. R.*, ore flotation process, (P.), B., 633.
- Herman, *P.* See Pommerenke, *H.*
- Herman, *R. S.*, value of experimental [flour] milling test, B., 761.
- Hermanek, *R.*, electrolytic cell, (P.), B., 196.
- Hermann, *O.*, and Thermo Electric Battery Co., thermo-electric element, (P.), B., 82*.
- thermocouple, (P.), B., 820.
- Hermano, *A. J.*, and Rask, *O. S.*, consideration of certain reactions of starches with special reference to enzyme hydrolysis, B., 199.
- Hermanowicz, *E.* See Jabczyński, *K.*
- Herndlhofer, *E.*, histochemical detection of santonin, A., 387.
- Hernler, *F.*, triazoles. VII. Substituted 1-phenyl-3:5-dimethyl-1:2:4-triazoles, A., 1090.
- Hernler, *F.*, and Matthes, *F.*, triazoles. VI. Nitration of phenyl- and naphthyl-1:2:4-triazoles, A., 468.
- Hernler, *F.* See also Lindner, *J.*
- Hernu, *H.*, decomposition of heavy oils, (P.), B., 245.
- Herold, *W.* See Henrich, *F.*
- Herr, *E.* See Madelung, *W.*
- Herrdegen, *K.* See I. G. Farbenind. A.-G.
- Herrera, *L. A.*, imitations of moving amœba, infusoria, and other organic and cellular structures and forms, A., 279.
- imitation of organic forms by means of sodium stearate, A., 1222.
- Herrera-Batteke, *P. P.*, anilides and toluidides of chaulmoogric acid, A., 458.
- Herrera-Batteke, *P. P.*, and West, *A. P.*, esters of chaulmoogric acid, A., 55.
- Herrin, *R. C.* See Elvehjem, *C. A.*, and Hart, *E. B.*
- Herrington, *B. L.* See Johnson, *A. H.*, and Sharp, *P. F.*
- Herrly, *C. J.*, and Prest-O-Lite Co., Inc., manufacture of a lime sludge product, (P.), B., 655.
- Herrly, *C. J.* See also Young, *C. O.*
- Herrman, *H.* See Heller, *G.*
- Herrmann, *A.* See Strecker, *W.*
- Herrmann, *K.*, symmetry of atoms in crystals, A., 501.
- Herrmann, *K.* See also Schönfeldt, *N.*
- Herrmann, *M.* See Akt.-Ges. für Petroleumindustrie.
- Herrmann, *W. O.*, Deutsch, *H.*, and Consortium für Elektrochem. Industrie, manufacture of linoxyn-like substances, (P.), B., 419*.
- Herrmann, *W. O.*, Deutsch, *H.*, Haehnel, *Wolfram*, and Consortium für Elektrochemische Industrie, method of improving aldehyde resins, (P.), B., 852*.
- Herrmann, *W. O.*, and Haehnel, *Wolfram*, polyvinyl alcohol, A., 852.
- Herrmann, *W. O.* See also Consortium für Elektrochem. Industrie.
- Herrmuth, *E.* See Chemische Fabrik Kalk G.m.b.H.
- Herndorf, *E.*, apparatus for refining vegetable and animal oils and fats, (P.), B., 258.
- Herschel, *W. H.*, conditions of flow into the vertical capillary tube of the Saybolt thermo-viscosimeter, B., 687.
- Herschel, *W. H.*, and Bulkley, *R.*, calibration of the burette consistometer, B., 127.
- Herschekowitsch, *M.* See Schott & Gen.
- Herschman, *H. K.* See Jordan, *L.*
- Herszfankiel, elements of atomic numbers 43, 61, 75, 85, and 87, A., 501.
- Hertel, *E.*, and Mischnat, *J.*, complex-isomerism, A., 235.
- Hertel, *K. L.*, polarisation of the light from hydrogen canal rays, A., 708.
- Herthel, *E. C.*, Pelzer, *H. L.*, and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 674*.
- Herthel, *E. C.*, and Sinclair Refining Co., oil-cracking still, (P.), B., 210.
- production of light hydrocarbon liquids, (P.), B., 770.
- Hertog, *R.*, treatment of glass used in motor-car lamps, etc., (P.), B., 221.
- Herty, *C. H. jun.*, burnt lime and raw limestone in the basic open-hearth process, B., 488.
- Hertz, *G. L.*, and Naaml. Vennoots. Philips' Gloeilampenfabr., manufacture of very thin wires, (P.), B., 449*.
- Hertzka, *G.*, manufacture of alumina-containing cements, (P.), B., 254.
- Hertzman, *A. B.*, and Gesell, *R.*, regulation of respiration. VII. Tissue acidity, blood acidity, and the co-ordination of the dual function of hæmoglobin during suspended ventilation, A., 583.
- regulation of respiration. IX. Relation of tissue acidity and blood acidity to volume flow of blood as illustrated by hæmorrhage and re-injection, A., 1101.
- Hertzman, *A. B.* See also Gesell, *R.*
- Hervé, *A.* See Hervé, *F. R.*
- Hervé, *F. R.*, Hervé, *M.*, and Hervé, *A.*, sizing composition for coating purposes, (P.), B., 259, 340*.
- Hervé, *M.* See Hervé, *F. R.*
- Herwerden, *M. A. van*, reversible gelation and fixation of tissues, A., 279.
- Herwig, *W.*, working of steel containing copper, B., 335.
- determination of sulphur in steel, B., 413.
- Herz, *E. von*, manufacture of detonating compositions for explosive and percussion caps, (P.), B., 430*.
- Herz, *R.*, and Grasselli Dyestuff Corporation, violet vat dye of the 1-thionaphthen-2-indoleindigo series, (P.), B., 674.
- reaction product of sulphur chloride and primary arylamines, (P.), B., 773*.
- Herz, *R.*, Müller, *Jens*, and Grasselli Dyestuff Corporation, vat dyestuffs of the 2-thionaphthen-2-indoleindigo series, (P.), B., 136.
- greenish-blue to green vat dyestuffs of the thioindigo series, (P.), B., 697.
- Herz, *R.*, Schulte, *F.*, and Grasselli Dyestuff Corporation, production of 1-naphthol-8-carboxylic acid, (P.), B., 437.
- Herz, *W.*, Trouton's quotients, A., 101.
- [temperatures of] equal internal pressure, A., 102.
- molecular refraction and the parachor, A., 189.
- latent heat of vaporisation and density, A., 193.
- dependence of free space on temperature, A., 294.
- dielectric constants and refractive indices, A., 498.
- surface tension and latent heat of evaporation, A., 506.
- limits of validity of gas equations. III., A., 507.
- densities of saturated vapours at corresponding temperatures. A., 718.
- dispersion in the liquid state at extreme temperatures, A., 813.
- vibration frequencies of binary compounds, A., 817.
- density and temperature. VI., A., 927.
- vibration frequencies of organic compounds, A., 1006.
- relation between the difference of the specific heats at constant pressure and constant volume and properties of liquids, A., 1018.
- Herz, *W.*, and Stanner, *E.*, partition coefficients and the influence of salts, A., 1020.
- Herzberg, *O. W.* See Skirrow, *F. W.*
- Herzberg, *W.* See I. G. Farbenind. A.-G.
- Herzenberg, *J.*, and Ruhemann, *S.* [with Wichterich, *F.*], aromatic and hydroaromatic compounds of lignite tar, A., 551.
- Herzer, *H.* See Biltz, *W.*
- Herzfeld, *K. F.*, atomic properties which make an element a metal, A., 613.
- Herzfeld, *K. F.*, and Hettich, *A.*, symmetry of sylvine and the nature of its etching figures, A., 97.

- Herzger, R.**, effect of X-rays on autolysis and proteolysis, A., 697.
- Herzog.** See **Blaise, E. E.**
- Herzog, A.**, structure and strength of aerated [hollow] artificial silks, B., 246.
- Herzog, E.** See **British Thomson-Houston Co., Ltd.**
- Herzog, H.**, and **Hüssy-Bühler, W.**, motor fuel, (P.), B., 695.
- Herzog, M.** See **Klemenc, A.**
- Herzog, R. O.**, Röntgen diagram of mercerised cellulose, A., 342.
structure of silk fibroin, A., 686.
formation of cellulose hydrate, A., 724.
acetate silk, B., 163.
X-ray examination of the tanning of membranes and tendons, B., 343.
- Herzog, R. O.**, and **Cohn, H.**, mol. wt. of gelatin in cresol, A., 1017.
- Herzog, R. O.**, and **Hillmer, A.**, ultra-violet absorption spectrum of lignin. I., A., 342.
ultra-violet absorption spectra of lignin and substances with the coniferyl residue, A., 861.
- Herzog, R. O.**, and **Jancke, W.**, collagen. II., A., 69.
X-ray investigation of spiders' silk, A., 691.
comparison of X-ray spectra of organic compounds in the solid and liquid states, A., 1129.
- Heskamp, P.**, working shaft furnaces with the aid of furnace dust, (P.), B., 575.
method of working shaft furnaces, (P.), B., 659.
- Hess, A. F.**, and **Anderson, R. J.**, antirachitic value of irradiated cholesterol and phytosterol. VIII. Activation of sterol fractions by ultra-violet irradiation, A., 1224.
- Hess, A. F.**, and **Sherman, E.**, antirachitic value of irradiated cholesterol and phytosterol. VII. Effect of irradiated cholesterol on phosphorus and calcium balance, A., 703.
- Hess, B. E.** See **Coward, H. F.**
- Hess, F. M.**, apparatus for continuous distillation [of oil], (P.), B., 134.
pressure distillation of hydrocarbons, (P.), B., 134.
apparatus for distilling hydrocarbons under pressure and a catalysing agent, (P.), B., 403.
method and apparatus for cracking oil, (P.), B., 806.
- Hess, K.**, and **Friese, H.**, cellulose. XXIII. Acetolysis of cellulose. II., A., 44.
lichenin. III. Lichenin, Pringsheim's lichosan, and Bergmann's lichohexosan, A., 860.
- Hess, K.**, and **Katona, G.**, cellulose. XXVII. Oxycellulose, A., 861.
- Hess, K.**, and **Lüdtke, M.**, companions of cellulose. I. Vegetable cell-membranes; carbohydrates of ivory-nut seeds, A., 960.
- Hess, K.**, and **Michael, F.**, cellulose. XXX. Acetolysis of cellulose by hydrogen bromide and acetyl bromide; degradation to a trihexosan, A., 1058.
- Hess, K.**, **Michael, F.**, and **Reich, W.**, cellulose. XXIV. Presence of a foreign substance in cellulose fibres, A., 44.
- Hess, K.**, and **Müller, Alexander**, cellulose. XXVI. Crystal line triethylcellulose, A., 861.
- Hess, K.**, and **Pichlmayr, H.**, cellulose. XXII. Crystalline trimethylcellulose, A., 44.
- Hess, K.**, and **Schultze, G.**, cellulose. XXV. Cryoscopic behaviour of cellulose acetates, A., 753.
cellulose. XXIX. Preparative separation of cellulose crystals from bast fibres. I. From ramie fibres, A., 861.
- Hess, K.**, and **Stahn, R.**, cryoscopic behaviour of glycogen acetate, A., 753.
cryoscopic behaviour of inulin acetate, A., 753.
- Hess, K.** See also **Friese, H.**, **Michael, F.**, and **Schultze, G.**
- Hess, P. J.**, and **Pittsburgh Plate Glass Co.**, manufacture of rouge, (P.), B., 409.
- Hesse, E.**, mercury poisoning. II. Parenteral mercury poisoning, A., 73.
detoxication of nitrites, A., 1219.
- Hesse, F.** See **Kindler, K.**
- Hessellwitz, B.**, and **Continsouza, M.**, artificial stones, (P.), B., 190.
- Hessenbruch, W.** See **Oberhofer, P.**
- Hessenland, M.** See **Wagner, H.**
- Hessler, M. C.** See **Sherman, H. C.**
- Hetherington, A. C.** See **Shoesmith, J. B.**
- Hetherington, H. C.** See **Clark, K. G.**, and **Krase, H. J.**
- Hetler, D. M.**, chemistry of bacteria. XIV. *Bacillus lactis aerogenes*, A., 593.
- Hettich, A.**, silver subfluoride, A., 1155.
- Hettich, A.** See also **Herzfeld, K. F.**, and **Steinmetz, H.**
- Hettner, G.**, impact-broadening of spectral lines and the sharpness of quantum states, A., 89.
- Heuckeroth, A. W. van.** See **Gardner, H. A.**
- Heuchlin, L. J.**, decolorisation of [beet] sugar juices, (P.), B., 538.
- Heuer, W.**, and **Lang, A.**, artificial product from absorbent material, (P.), B., 963.
- Heukelekian, H.**, decomposition of cellulose in fresh sewage solids, B., 766.
- Heumann, J.** See **Voigt, J.**
- Heuser, E.**, hemicellulose, A., 545.
alkali-cellulose. IV., B., 294.
- Heuser, E.**, and **Bartunek, R.**, alkali-cellulose. III., B., 40.
- Heusler, F.**, magnetism and crystal structure of manganesc-aluminium-copper, A., 502.
- Heusler, O.**, ternary system copper-zinc-manganese, A., 313.
- Heusler, O.** See also **Tammann, G.**
- Hevesy, G. von**, missing element 87, A., 289.
zinc blende-wurtzite lattice and ionic lattices, A., 815.
- Hevesy, G. von**, and **Böhm, J.**, determination of tantalum by X-ray spectroscopy, A., 849.
- Hevesy, G. von.** See also **Coster, D.**
- Hewitson, E. H.**, and **Eastman Kodak Co.**, coating aluminium surfaces, (P.), B., 491.
- Hewitt, L. F.**, optical rotatory power and dispersion of proteins, A., 583.
identity of urinary albumin, A., 1106.
- Hewitt, L. F.** See also **Marrack, J.**
- Hewson, G. W.**, cleaning of blast-furnaces gases; Kling-Weidlein gas cleaner, B., 672.
- Hey, H.**, removal of suspended matters from oils and organic solvents, (P.), B., 563*.
- Hey, H.** See also **Gepp, H. W.**, and **Street, W. A.**
- Heyden, H. von der**, and **Typke, K.**, acid value of the "blown" oil and the "tar-forming" value, B., 34.
examination of some transformer oils kept for long periods in the dark, B., 98.
influence of admixture of salts and certain organic compounds on the oxidation of highly refined [transformer] oils, B., 899.
- Heyl, F. W.**, and **Fullerton, B.**, ovarian residue. II. Alcohol-insoluble, water-soluble nitrogenous extractives, A., 371.
- Heyl, F. W.** See also **Hart, M. C.**
- Heyl, G. E.**, cement and lime burning, (P.), B., 412*.
fibrous paint material, (P.), B., 708.
- Heyl, G. E.**, and **Kunze, O.**, plastering walls, (P.), B., 45.
- Heylandt, C. W. P.**, obtaining and storing gases under pressure, (P.), B., 545.
- Heyman, W. A.**, freezing apparatus for use in the concentration of fruit juices, (P.), B., 923.
- Heymann, E.** See **Bechhold, H.**
- Heymann, H.** See **Wood, T. E.**
- Heymons, A.** See **Braun, J. von.**
- Heyn, M.**, production of salts of aminoguanidine or α -amino-alkylaminoguanidines, (P.), B., 619.
production of alkylendiguandines, (P.), B., 714.
- Heyne, G.**, determination of small quantities of hydrogen in nitrogen as hydrogen chloride, B., 217.
- Heyne, L.** See **Katz, J. R.**
- Heynert, F. A. H.** See **British Bead Printers, Ltd.**
- Heyrovský, J.**, theory of overpotential, A., 1145.
electrolytic analysis with a dropping mercury cathode, A., 1159.
- Heyrovský, J.** See also **Dolejšek, V.**
- Hibbard, R. P.** See **Doby, G.**
- Hibben, J. H.**, radiation and collision in gaseous chemical reactions, A., 948.
- Hibbert, (Miss) E.**, effect of light on [indigo]-coloured cotton fabric. I., B., 840.
- Hibbert, H.**, and **Hassan, S. M.**, reactions relating to carbohydrates and polysaccharides. XII. Action of chromic acid on cotton cellulose, B., 904.
- Hibsch, J. E.**, microscopical examination of quartzites and lime-quartz bricks (silica bricks, Dinas bricks), B., 580.
- Hick, G. M.**, and **Hick, N. G.**, hardening phenol-aldehyde condensation products under heat and pressure, (P.), B., 684.
- Hick, N. G.** See **Hick, G. M.**
- Hickinbottom, W. J.**, rearrangement of alkylanilines, A., 236.
- Hickinbottom, W. J.** See also **Charlton, W.**
- Hickley, H. W.**, and **Baker Perkins Co., Inc.**, vessel for mixing chocolate, etc., (P.), B., 890*.
- Hickman, K. C. D.**, chemical aspect of sulphide sensitivity, B., 126.

- Hicks, C. S., tryptophan feeding. I., A., 276.
Hicks, M. M. See Pearce, J. N.
Hicks, W. M., spectral notation, A., 285.
Hickson, E. F., commercial flat white wall paints (lithopone type), B., 451.
study of the peroxide and persulphate methods for determining chromium in chrome paint pigments, B., 585.
penetration tests on paste paints, B., 633.
Hidert, P., and Sweeney, W. T., thermal expansion of graphite, A., 614.
Hieber, W., and Sonnehalb, F., ring-closure in additive compounds.
III. Determination of configuration of stereoisomeric hydrazones, A., 1077.
Hieger, I., alleged action of X-rays on cholesterol, A., 556.
Hieger, I. See also Kennaway, E. L.
Hiers, G. S., and Adams, R., catalytic reduction of di- and tri-phenylamines with hydrogen and platinum oxide platinum-black, A., 552.
Hieulle, A. See Fosse, R.
Higby, W. M., lysimeter studies, B., 729.
Higginbotham, L. See Fargher, R. G.
Higgins, C. F., heat interchange apparatus, (P.), B., 175.
Higgins, E. B., azoic colours, B., 649.
Higgins, E. B. See also British Synthetics, Ltd.
Higgins, R., dilatation of cast irons during repeated heating and cooling between 15° and 600°, B., 485.
Higgins, W. F. See Dixon, H. B., and Kaye, G. W. C.
Hilberberger, J. H. See McLaughlin, G. D., and Rockwell, G. E.
Hilbert, H., increasing the production and phosphoric acid content of Thomas slag, (P.), B., 338*.
Hilcken, V. See Boehringer & Soehne, C. F., and I. G. Farbenind. A.-G.
Hildebrand, J. H., quantitative treatment of deviations from Raoult's law, A., 936.
Hildebrand, J. H., and Ruhle, G. C., change in activity of molten lead chloride on dilution with potassium chloride, A., 418.
Hildebrand, J. H. See also Dorfman, M. E., and Scarlett, A. J.
Hildebrandt, F. M., Frey, C. N., and Fleischmann Co., treatment and preparation of yeast and product, (P.), B., 538.
Hildenbrand, G. See Wersehen-Weissenfeller Braunkohlen A.-G.
Hilditch, T. P., Vidyarthi, N. L., and Jones, E. E., ill-defined acids of the oleic series. I. Hypogaeic acid of ground-nut oil. II. Petroselic acid and the composition of English parsley-seed oil, A., 540.
Hilditch, T. P. See also Heilbron, I. M.
Hilgenberg, G., drying devices for granular material, (P.), B., 32.
Hilker, C., gas production from powdered charcoal, (P.), B., 770.
Hill, A. E., and Bacon, L. R., ternary systems. VI. Sodium carbonate, sodium hydrogen carbonate, and water, A., 1142.
Hill, A. E., and Hill, D. G., ternary systems. V. Potassium hydrogen carbonate, potassium carbonate, and water, A., 518.
Hill, A. E., and Miller, F. W., ternary systems. IV. Potassium carbonate, sodium carbonate, and water, A., 418.
Hill, A. J., and Cox, M. V., amidines of the holocaine type. II. Ester-substituted amidines, A., 144.
Hill, B. P., and Blaydon Manure & Alkali Co., (1877), Ltd., treatment of phosphatic materials, (P.), B., 199.
Hill, C. B., Givens, M. H., and Northwestern Yeast Co., manufacture of yeast foam malted milk, (P.), B., 795.
production of dry yeast, (P.), B., 826.
Hill, C. B., Tintner, G. L., and Northwestern Yeast Co., manufacture of bread, (P.), B., 857.
Hill, D. G. See Hill, A. E.
Hill, D. W. See Heilbron, I. M.
Hill, G. A., bromine derivatives of some δ -ketonic esters, A., 360.
Hill, H. See Rushton, J. L.
Hill, J. See Baddiley, J., and British Dyestuffs Corporation, Ltd.
Hill, J. B., and Ferris, S. W., laboratory fractionating columns, A., 437.
Hill, J. B., Henderson, L. M., and Ferris, S. W., composition of gasoline as indicated by close fractionation, B., 514.
Hill, J. H. See Macht, D. I.
Hill, J. W., production of anhydrous sodium sulphate, (P.), B., 293.
Hill, L., fastness to light of dyestuffs on woollen and worsted fabrics. V. Effect of ultra-violet radiation on the fading of dyed fabrics, B., 539.
Hill, Robert, chemical nature of hæmochromogen and its carbon monoxide compound, A., 65.
Hill, Robert, and Holden, H. F., preparation and properties of the globin of oxyhæmoglobin, A., 67.
reaction between globin and hæmatin, A., 270.
reduction of hæmatin and methæmoglobin, A., 689.
Hill, Rowland. See Heilbron, I. M.
Hill, R. A. See Hall, A. J.
Hill, T. M. See Kiehl, S. J.
Hill, W. L. See Yoe, J. H.
Hillebrand, P., and Olson, A., pumps for artificial silk spinning machines, (P.), B., 329.
Hiller, A. See Van Slyke, D. D.
Hiller, H., Kipp's apparatus for the preparation of gases absolutely free from air, A., 642.
Hillier, H., evaporators, (P.), B., 32, 896.
tubular heat exchanger, (P.), B., 640.
Hillig, F. See Hartmann, B. G.
Hillmer, A. See Herzog, R. O.
Hills, A. E., manufacture of sheet material, (P.), B., 301.
production of cementitious material, (P.), B., 333.
Hills, H. A., distilling apparatus for volatile liquids, (P.), B., 64.
Hilman, G. C. See Raiford, L. C.
Hilpert, S., Paneth, L., and Schlumberger, E., bactericidal action [in tanning processes] of chromium salts and its general origin, B., 917.
Hilsch, R., ultra-violet absorption of natural and artificial crystals of sodium and potassium chlorides, A., 917.
absorption spectra of phosphors produced by the addition of lead and thallium to halides of the alkali metals, A., 1125.
Hilsch, R., and Ottmer, R., photo-electric effect in natural blue rock-salt, A., 7.
Hiltner, R. S., cleaning textile fibres and fabrics, (P.), B., 472.
Hilton, R. W., and Kemper-Thomas Co., manufacture of fibre board, (P.), B., 406.
Himmelsbach, J., preservative for telegraph poles, etc., (P.), B., 525.
Himmelsbach, J., and Himmelsbach Gebrüder, Akt.-Ges., preserving wood by impregnation, (P.), B., 142*.
Himmelsbach Gebrüder, Akt.-Ges. See Himmelsbach, J.
Hinchley, J. W. See Simon, L. J.
Hind, H. L., and Beestlestone, N. G., wort composition, B., 89.
Hind, S. R., formulae for slip calculations, B., 44.
tunnel kilns for burning firebricks. I., B., 44.
Hinden, F. See Ott, E.
Hindshaw, H. H., and Hindshaw Engineering & Development Co., apparatus for utilising low-grade iron ore, (P.), B., 783.
Hindshaw Engineering & Development Co. See Hindshaw, H. H.
Hines, H. M., Leese, C. E., and Boyd, J. D., effect of pituitrin administration on carbohydrate metabolism, A., 796.
Hinglais, (Mme.) H., application of the Copaux method for the determination of small amounts of phosphorus in tissues, A., 787.
Hinkel, L. E., and Angel, T. H., methylmercuric halides and hydroxide, A., 962.
Hinnüber, J. See Tammann, G.
Hino, S., alteration of liver arginase activity through external factors, A., 173.
Hinsberg, O., [quinoxaline], A., 62.
Hinsberg, O., and Meyer, Robert, action of aminoacetals on phenols. II., A., 1071.
Hinshelwood, C. N., theory of unimolecular reactions, A., 26.
quasi-unimolecular reactions; decomposition of ethyl ether in the gaseous state, A., 212.
Hinshelwood, C. N., and Askey, P. J., homogeneous reactions involving complex molecules; kinetics of the decomposition of gaseous dimethyl ether, A., 630.
influence of hydrogen on two homogeneous reactions, A., 1036.
Hinshelwood, C. N., and Thompson, H. W., apparently unimolecular reaction; homogeneous decomposition of gaseous propaldehyde, A., 26.
Hinshelwood, C. N. See also Knight, R. W.
Hintermaier, A. See Wieland, Heinrich.
Hinzmann, R., heat treatment and structure of α - β -brass, B., 752.
Hinzmann, R. See also Hanemann, H.
Hippel, A. von, cathodic sputtering. III. Theory of cathode sputtering, A., 118.
Hirai, K., synthesis of *dl*-2:4-dihydroxyphenylalanine (*dl*-resorcylalanine), A., 56.
synthesis of *dl*-2:5-dihydroxyphenylalanine, A., 1153.

- Hiraidzumi, *T.*, camphor series. XII. Catalytic activity of various reduced coppers on *l*-menthol, A., 946.
- Hirano, *N.*, terpene and sesquiterpene of mitsubazeri, A., 156*.
- Hirao, *N.*, terpenes and related compounds. II. Preparation of piperonal from isosafrole using potassium dichromate, A., 57.
- terpenes and related compounds. III. Isomerisation of safrole under reduced pressure, A., 353.
- Hirasawa, *M.*, and Hoshino, *S.*, manufacture of artificial silk, (P.), B., 165.
- Hirata, *H.*, system of orbital planes in the inner region of an atom; *O*-triplets in X-ray spectra belonging to the *L*-series, A., 5.
- Hirschberg, Blattner process for the preparation of caustic soda from sodium carbonate, B., 906.
- Hird, *H. P.* See Whitehead, *H.*
- Hirose, *M.*, improvement in the quality of soaps made with hydrogenated oils. I., B., 339.
- Hirsch, *G.*, effect of addition of alkali [to the diet] on alimentary hyperglycemia during starvation, A., 1217.
- Hirsch, *H.*, effect of different forms of silica in porcelain bodies, B., 557.
- Hirsch, *M.*, hygroscopic properties of leathers according to Wilson, Daub, and Kern's experiments, B., 824.
- determination of gallic acid in tannin-free gallic acid, B., 858.
- Hirsch, *P.*, and Rüter, *R.*, reduction-oxidation potentials. II. Colorimetric determination of reduction-oxidation potentials, A., 23.
- Hirsch, *P.* See also Tillmans, *J.*
- Hirsch, *R. von.* See Döpel, *R.*
- Hirsch, *S.* See Taglietti, *M.*
- Hirschberg, *E.* See Winterstein, *H.*
- Hirschel, *W. N.*, specific gravity, bulk density, and opacity of lithopone, B., 259.
- basic zinc sulphate liquors in lithopone manufacture, B., 707.
- Hirschkind, *W.*, and Great Western Electro-Chemical Co., manufacture of dioxanthogen, (P.), B., 125.
- manufacture of alkali xanthates, (P.), B., 796.
- Hirst, *E. L.*, derivatives of orcinol. I., A., 1189.
- Hirst, *E. L.* See also Avery, *John*, and Haworth, *W. A.*
- Hirst, *H. R.*, ultra-violet radiation as an aid to textile analyses, B., 933.
- Hirst, *H. R.*, and King, *P. E.*, method for detecting complete development of indigosols and soledon colours on wool, B., 964.
- Hirst, *H. R.* See also Barker, *S. G.*
- Hirzel, *H.*, and Schilt, *W.*, production of alkyl- and aralkyl-resoreinols, (P.), B., 459.
- Hiscox, *E. R.*, reductase test, B., 313.
- Hislop, *R. F.*, [heating chamber] for gas- or oil-fired furnaces, (P.), B., 400.
- Hissink, *D. J.*, action of lime on clay soils, B., 87.
- action of lime on fen soils, B., 87.
- action of lime on a Roodoorn soil, B., 87.
- adsorption capacity of soils, B., 88.
- relation between the pH value, degree of saturation, and humus of some humus soils; equivalent weight of the humus substance, B., 88.
- what happens to the lime when soil is limed? B., 88.
- Hissink, *D. J.*, and Dekker, *M.*, determination of phosphoric acid in soils, B., 87.
- Hissink, *D. J.*, and Spek, *J. van der*, determinations of pH of soil by the Büllmann quinhydrone method, B., 308.
- Hitch, *E. F.*, Smith, *F. H.*, and Du Pont de Nemours & Co., *E. I.*, polyazo-dyes and process of making same, (P.), B., 101.
- Hitchcock, *D. I.*, identity of Langmuir's adsorption equation with the law of mass action, A., 15.
- Hitchcock, *L. B.* See Calingaert, *G.*
- Hiwatari, *Y.*, nitrogenous extractives of ox liver, A., 1215.
- nitrogenous components from the fruit of *Citrus grandis*, Osbeck, form. Buntan Hayat, A., 1227.
- Hixon, *R. M.*, and Drake, *C. J.*, chemical test of nicotine dusts, B., 891.
- Hixon, *R. M.*, and Johns, *I. B.*, electron-sharing ability of organic radicals, A., 814.
- Hjort, *A. M.* See Dox, *A. W.*
- Blasko, *M.*, and Kamienski, *E.*, electrolytic dissociation of hydrogen chloride, bromide, and iodide in anhydrous methyl alcohol, A., 625.
- Blasko, *M.*, and Michalski, *E.*, conductivity and mol. wt. of halogen acids in dry and moist nitrobenzene, A., 204.
- Hoagland, *D. R.* See Evans, *H. M.*
- Hoagland, *R.*, and Snider, *G. G.*, nutritive value of protein in beef extract, ox blood, ox palates, calf lungs, hog snouts, and cracklings, B., 121.
- Hobson, *F. E.*, fuel-distilling apparatus, (P.), B., 290, 836*.
- Hoche, *B.*, industrial production of levulose, B., 233.
- Hochofenwerk Lübeck Akt.-Ges. Abt. Rolandshütte, simultaneous production of cement and pig iron in the blast furnace, (P.), B., 605.
- Hochstetter, *F.*, and Schmeidel, *G.*, permanently preserving animals and plants, (P.), B., 30, 718*.
- Hock, *A. L.* See Bell, *E. V.*, and Bennett, *G. M.*
- Hock, *L.*, fibre structure and Röntgen interference of stretched synthetic rubber, B., 564.
- Hock, *L.*, and Bostrom, *S.*, thermochemical comparison of various types of lamp-black, B., 130.
- Hocker, *C. D.*, and Western Electric Co., Inc., coating composition, (P.), B., 609*.
- Hockney, *H. L.*, and Bancroft, *C. W.*, cloth dyeing for rubber-proofing, B., 362.
- Hodakow, *J.*, mechanism of titration with adsorbed indicators, A., 743, 1029.
- Hodgkinson, *W. R.* See Ridge, *H. M.*
- Hodgson, *A. E.*, and Jones, *N. C.*, apparatus for generating oil gas, (P.), B., 549.
- Hodgson, *A. E.* See also Lamplough, *F.*
- Hodgson, *H. H.*, Kekulé formula for benzene and the existence of isomeric *o*-disubstitution products, A., 47.
- positional influence of substituents on chemical reactivity and colour, A., 460.
- iodination of *o*-nitrophenol, A., 660.
- benzidine, A., 760.
- Hodgson, *H. H.*, and Beard, *H. G.*, 3-nitro-4-amino- and 3:4-dihalo-*o*-benzaldehydes, A., 244.
- preparation of 2:5-dihydroxybenzaldehyde (gentisaldehyde), A., 1075.
- preparation of nitrohydroxybenzaldehydes and colour relationships of their substituted phenylhydrazones, A., 1075.
- sulphur derivatives of substituted benzaldehydes, A., 1188.
- Hodgson, *H. H.*, and Jenkinson, *T. A.*, the Reimer-Tiemann reaction with *m*-chlorophenol, A., 877.
- Hodgson, *H. H.*, and Moore, *F. H.*, nitration of *m*-iodophenol, A., 456.
- Hodgson, *H. H.*, and Wignall, *J. S.*, 5-halogenoresoreinols, A., 52.
- action of alkali hydroxides on 3-halogeno-4-nitrosodimethylanilines, A., 656.
- nitrosation of phenols. IV. 3:5-Dichlorophenol, A., 1064.
- Hodgson, *W. R. P.* See Glasstone, *S.*
- Hodkin, *F. W.* See Dimbleby, *V.*, and Firth, *E. M.*
- Hodsman, *H. J.* See Bligh, (*Mrs.*) *M. F.*
- Hodson, *F.* See Smalley, *O.*
- Höeg, *F. A.*, determination of sodium nitrite, B., 600.
- Hoefelmayer, *K.*, manufacture of an invalid food from milk, (P.), B., 426.
- Hoeg, *F.*, resinification value of transformer oils, B., 272.
- Höganäs-Billesholms Aktiebolag, production of aluminium oxide, (P.), B., 107.
- Höhn, *F.*, preparation of a reactive chloride from pinene or turpentine, (P.), B., 378, 461*.
- Höbbling, *R.*, preparation and properties of pure silicon, A., 844.
- Höbbling, *R.* See also Becker, *K.*
- Hölken, *M.*, making artificial silk and staple fibre, (P.), B., 70.
- Hölken, *M., jun.*, manufacture of artificial silk, (P.), B., 905*.
- Höltje, *R.* See Geilmann, *W.*
- Hölzl, *F.*, organic acids and bases in non-aqueous solutions. II. Aliphatic acids, A., 310.
- organic acids and bases in non-aqueous solutions. III. Aliphatic dicarboxylic and aromatic acids, A., 558.
- Hölzl, *F.* [with Hauser, *W.*, and Eckmann, *M.*], alkylation of hydroferrocyanic acid, A., 864.
- Hölzl, *F.*, and Crocogino, *H.*, system sodium nitrate-sodium chloride-water, A., 207.
- Höning, *M.*, and Fuchs, *W.*, sulphite boiling process, B., 405.
- Hönigschmid, *O.*, Birkenbach, *L.*, and Chan, *S. B.*, fundamental at. wts. VI. At. wt. of chlorine. I. Complete synthesis of silver chloride. II. An incomplete synthesis of silver chloride, A., 806.
- Hönigschmid, *O.*, and Goubeau, *J.*, fundamental at. wts. IV. At. wt. of potassium; analysis of potassium chloride, A., 806.
- Hönigschmid, *O.*, and Welsbach, *A. von*, revision of the at. wt. of yttrium. II. Analysis of yttrium chloride, A., 915.

- Hönigschmid, O., and Welsbach, A. von, revision of the at. wt. of dysprosium; analysis of dysprosium chloride, A., 915.
- Hönigschmid, O., Zintl, E., and Thilo, P., fundamental at. wts. III. Revision of the at. wt. of silver; analysis of silver nitrate, A., 806.
- Hönigschmid, O. See also Bodenstern, M.
- Höring, M. See Meisenheimer, J.
- Hörning, F., production of carbon dioxide for fertilising plants, by burning coal, (P.), B., 467.
- Hörste, G. M. zu, determination of oxalic acid in urine, A., 896.
- Hoesch, K., [nuclear condensation of phenols with nitriles], A., 353.
- Hoesslin, H. von, influence of quantity of food on growth, A., 989. growth of cats, A., 990.
- Hoeve, J. A. van der. See Cohen, E.
- Hofer, K., Hufschmidt's process for regenerating permutit filters, B., 350.
- Hoffa, E. See Wagner, H.
- Hoffman, A., ethers of diacetone alcohol, A., 338.
- Hoffman, F. G., apparatus for the distillation or drying of coal or other solid materials, (P.), B., 319.
- Hoffman, W. F., and Gortner, R. A., preparation and analysis of the various proteins of wheat flour with special reference to the globulin, albumin, and proteose fractions, B., 538.
- Hoffman, W. F. See also Gortner, R. A., and Textor, C. K.
- Hoffman, W. S., micro-determination of pentose in yeast-nucleic acid and its derivatives, A., 687.
- Hoffmann, A. See Jacobs, W. A., and Préparation Industrielle des Combustibles.
- Hoffmann, G., behaviour of materials of different atomic numbers towards Hess' ultra- γ -rays; natural radioactivity of the elements, A., 289.
- Hoffmann, H. See Koref, F.
- Hoffmann, M. K., carbon crucible for very high temperatures, B., 671.
- Hoffmann, W., membrane filters in soil analysis, B., 973.
- Hoffmann-La Roche Chemical Works. See Preiswerk, E.
- Hoffmann-La Roche & Co., Akt.-Ges., F., preparation of barbituric acid derivatives, (P.), B., 398.
- solutions for destroying animal and plant pests, (P.), B., 536.
- manufacture of ureides of dialkyl- or arylalkyl-acetic acids, (P.), B., 573.
- manufacture of a glucoside of *Adonis vernalis*, L., (P.), B., 797.
- manufacture of a compound of isopropylallylbarbituric acid with antipyrine, (P.), B., 829.
- Hoffmeister, C., hadromal, A., 1189.
- Hofmann, K., advantages of smelting fine-grained ores in the blast furnace, B., 334.
- Hofmann, K. A., production of nitrates from calcium cyanamide, (P.), B., 652.
- Hofmann, K. A., and Groll, H., production of ammonia and hydrocarbons by the action of steam on lignite coke at 500°, B., 289.
- Hofmann, K. A., and Hofmann, U., action of molecular oxygen and hydrogen on sodium azide, A., 31.
- lustre carbon as initial member of the black, crystalline carbon series, B., 802.
- Hofmann, K. A., Leschewski, K., Lemme, W., Galotti, H., Mayen, K., and Gundelach, W., oxidation of ammonia to nitrate at alkaline surfaces, B., 600.
- Hofmann, U. See Hofmann, K. A.
- Hogben, L., colorimetric determination of the oxidation of haemocyanin, A., 270.
- Hogg, F. S., and Payne, C. H., calibration of photographic plates, B., 541.
- Hogness, T. R., and Franck, J., increase in translational energy of the products of a gaseous photochemical decomposition, A., 947.
- Hogness, T. R., and Lunn, E. G., positive-ray analysis of nitric oxide and collisions of the second kind, A., 806.
- Hogness, T. R. See also Smyth, H. D.
- Holborn, F., and Hazeltine Corporation, preparation of an electron-emitting cathode, (P.), B., 529, 786.
- Holborn, L., and Otto, J., ageing of thermometer glasses, B., 140.
- Holde, D., anhydrides of aliphatic acids, A., 131.
- Holde, D., and Gorgas, A., dibromides of oleic and elaidic acids and the purification of oleic acid, B., 83.
- Holden, E. C. See Silica Gel Corporation.
- Holden, G. E., oxidation of linseed oil. II., B., 530.
- rendering gelatin insoluble, B., 565.
- Holden, G. W. See Hatcher, W. H.
- Holden, H. F. See Hill, Robert.
- Holden, J. A. See Smith, W. S.
- Holford, H. J., and Harvey, P. P., separating water and other impurities from mineral and other oils or liquids, (P.), B., 596*.
- Holl, A., and Grasselli Dyestuff Corporation, vat dyestuffs of the anthraquinone [pyrazoleanthrone] series, (P.), B., 627.
- Holl, M. See Lipp, P.
- Holland, E. B., Dunbar, C. O., and Gilligan, G. M., preparation and effectiveness of basic copper sulphates for fungicidal purposes, B., 121.
- influence of form and proportion of lime used and of method of mixing on the resulting Bordeaux mixture, B., 875.
- Holland, E. B., and Gilligan, G. M., solubility of copper sulphate, malachite, and Burgundy precipitate in ammonia, ammonium carbonate and bicarbonate, B., 479.
- Holland, W. W., and Standard Oil Co., reflux column, (P.), B., 67.
- Hollandt, F. See Zink, J.
- Holle, W., evaporation of mother-liquors [of the potash industry] at a definite temperature and a definite reduced pressure; contraction phenomena on diluting lyes and salt solutions, B., 477.
- Holliday, R. L., and Industrial Spray-Drying Corporation, manufacture of finely-divided dry soap, (P.), B., 339, 851*.
- Holliday, R. L. See also Industrial Spray-Drying Corporation.
- Holliday & Co., Ltd., L. B., and Shaw, C., manufacture of chloranil and bromanil, (P.), B., 742.
- production of grey to black vat dyes [of the dibenzanthrone series], (P.), B., 837.
- dyeing of wool and/or silk, (P.), B., 874.
- Hollings, H., influence of carbonising conditions on the free carbon content of tar, B., 38.
- Hollings, H., and Siderfin, N. E., coke in relation to some of its industrial and domestic uses, B., 353.
- Hollingsworth, M., protection of iron wire used for standardisation, A., 637.
- Hollins, C. See British Dyestuffs Corporation, Ltd.
- Hollman, E. C. M. J., determination of morphine in opium, B., 58.
- Hollé, J., and Weiss, S., colorimetric determination of oxygen saturation of blood, A., 786.
- Hollombe, B. S. See Dunn, M. S.
- Holluta, J., and Mautner, S., factors influencing the solubility of strong electrolytes. I. Reciprocal solubility effects of homoionic alkali salts. I., A., 828.
- Holluta, J., and Werner, H., heats of dissolution and dilution of alkali salts in solutions of electrolytes with the same cation, A., 1143.
- Hollywood Chemical Co. See Levy, G. J.
- Holm, G. E., Greenbank, G. R., and Deysher, E. F., susceptibility of fats to autoxidation, B., 145.
- Holm, G. E., Wright, P. A., and Greenbank, G. R., variations in the susceptibility of the fat in dry whole milks to oxidation when stored at various temperatures and in various atmospheres, B., 689.
- Holm, G. E. See also Dahlberg, A. C.
- Holm, R., thermal conductivity of gas carbon, A., 717.
- Holman, B. W., heat treatment as an agent in [quartz] rock breaking, B., 140.
- etching reagent for copper, B., 281.
- Holmberg, B., stereochemical studies. XIV. Hydrolysis of esters. XV. Alkaline decomposition of monochlorosuccinic acid. XVI. Hydrolysis of the monohalogenosuccinic acids, A., 1169.
- Holmberg, C. G., determination of oxalic acid in urine by means of the rocking-extraction method of Widmark, A., 478.
- Holmboe, C. F., activity of hydrogen, A., 1038.
- Holmes, A., and Lawson, R. W., radioactivity of potassium and its geological significance, A., 86.
- factors involved in the calculation of the ages of radioactive minerals, A., 493.
- Holmes, A. D., Doolittle, A. W., and Moore, W. B., vitamin potency of cod-liver oils. XXI. Stimulation of reproduction by fat-soluble vitamins, B., 614.
- Holmes, B. E., and Holmes, E. G., brain metabolism. IV. Carbohydrate metabolism of brain-tissue of depancreatised cats, A., 479.
- Holmes, B. E., and Watchorn, E., metabolism of tissues growing *in vitro*. I. Ammonia and urea production by kidney, A., 479.
- Holmes, B. E. See also Holmes, E. G.

- Holmes, C. W. H., cleaning of coal, with special reference to pneumatic separation, B., 641.
- Holmes, E. See Morgan, G. T.
- Holmes, E. G., and Holmes, B. E., brain metabolism. III. Carbohydrate metabolism; relationship of glycogen and lactic acid, A., 72.
- Holmes, E. G. See also Holmes, B. E.
- Holmes, M. E., Fink, G. J., and National Lime Association, manufacture of quick-setting lime products, (P.), B., 45.
- Holmes, P. F., Henshaw, D. M., and Holmes & Co., Ltd., W. C., apparatus for bringing liquids and gases into intimate contact, (P.), B., 768.
- Holmes, R. C., Manley, F. T., Behimer, O., and Texas Co., treatment [cracking] of hydrocarbon oils, (P.), B., 900.
- Holmes, R. C., and Texas Co., treatment of hydrocarbon oils, (P.), B., 386.
- Holmes, W. C., mechanism of stain action with basic dyes, A., 281. chemical nature of metachromasy, A., 281. colloidal phenomena in dye solutions, A., 411. stain solubilities. I. and II., A., 893, 895. subsidiary dyes in methylene-blue, A., 907. detonation wave from solid explosives, B., 429. spectrophotometric detection of boron, B., 936. iodometric evaluation of methylene-blue, B., 955.
- Holmes, W. C., and Scanlan, J. T., constitution of erythrosin and related dyes, A., 773. evaluation of ethyleosin, A., 1213.
- Holmes, W. C. See also Conn, H. J.
- Holmes & Co., W. C., Parker, J., and Henshaw, D. M., drying of fuel gases, (P.), B., 468. separation of tar and ammonia from fuel gases, (P.), B., 515.
- Holmes & Co., W. C. See also Cooper, C., Henshaw, D. M., and Holmes, P. F.
- Holmström, J. G. See Malmberg, C. J. G.
- Holoubek, R., tracks of *H*-particles, A., 494.
- Holst, G., Bouwers, A., and Naamloose Vennootschap Philips' Gloeilampenfabrieken, X-ray tube, (P.), B., 450.
- Holst, G., Oosterhuis, E., Bruijnes, J., and Naamloose Vennootschap Philips' Gloeilampenfabrieken, electric gas-filled discharge device, (P.), B., 226*.
- Holt, W. E. See Hammick, D. K.
- Holt, W. L. See Tener, R. F.
- Holter, H. See Späth, E.
- Holtmann, H. See Agde, G.
- Holtmark, J. See Faxén, H.
- Holtz, H. F. See Sievers, F. J.
- Holub, C., manufacture of artificial light filters, (P.), B., 295.
- Holzheuer, W. F., extraction process and apparatus, (P.), B., 856*.
- Holzverkohlungs-Industrie Akt.-Ges. See Krause, E.
- Homborg, F., manufacture of compositions from blood, (P.), B., 609.
- Homborg, F., and American Nuplax Corporation, treatment of horn, etc., (P.), B., 758.
- Homès, G., stable equilibrium of physico-chemical systems, A., 19. ionisation of gases and the Saha equation, A., 181. electrodeless discharge and active nitrogen, A., 605.
- Homolka, B. See I. G. Farbenind. A.-G.
- Honan, E. M., Townsend, J. R., and Western Electric Co., Inc., lubricant, (P.), B., 96.
- Honcamp, F., decomposition of straw and nutritive value of the decomposed straw, B., 698.
- Honcamp, F., and Steinfatt, F., amounts of [plant] nutrients in surface soils and subsoils and their importance in soil investigations, B., 198.
- Honda, K., and Endô, H., volume change in cast iron during solidification; criticism of the double diagram of the iron-carbon system, A., 627*.
- magnetic determination of the solidus and solubility lines in the iron-carbon system, A., 720.
- magnetic analysis as a means of studying the structure of non-magnetic alloys, B., 279.
- magnetic susceptibility of iron-carbon alloys at high temperatures, and the equilibrium diagram of the system, A., 1130.
- Honda, K., and Iwasé, K., transformation of retained austenite into martensite by stress, B., 558, 679.
- Honda, K., and Kaya, S., magnetisation of single crystals of iron, A., 298.
- Honda, K., and Mashiyama, Y., magnetostriction of single crystals of iron, A., 299.
- Honda, K., and Takahasi, K., indentation hardness of metals, B., 489.
- quantitative measurement of the cutting power of cutlery, B., 782.
- Honda, K., and Yamada, R., cause of temper-brittleness in steels, B., 655.
- Honeywell, H. E. See Bechdel, S. I., and Dutcher, R. A.
- Honigmann, L., and Bartling, F., distillation and coking of carbonaceous matter, (P.), B., 804.
- Honigmann, L. See also Trocknungs-, Verschmelzungs-, Vergasungs-Ges. m.b.H.
- Honneymann, W., pectin contents of flax, B., 164.
- Honsig, E. See Fuchs, W.
- Hood, N. R. See Baley, E. C. C.
- Hoog, A. See De Jong, W. F.
- Hooghoudt, S. B. See Lifschitz, I.
- Hoogland, J. J. See Böeseken, J.
- Hooker, M. O. See Fischer, M. H.
- Hooker Electro-Chemical Co. See Stuart, K. E.
- Hoolahan, A. See Gaudry, T. G.
- Hooley, L. J., Thomas, J., and Scottish Dyes, Ltd., preparation of colouring matters [of the anthraquinone series], (P.), B., 902.
- Hoorn, L. J. J. van der, method and apparatus for removing hydrogen from the surface of metal objects to be coated by electrolysis, (P.), B., 256.
- Hoover, C. P., use of lime in water softening and purification, B., 510. recarbonation of softened water, B., 717.
- Hoover, C. R., Dorcas, M. J., Langley, W. D., and Mickelson, H. G., catalytic preparation of unsaturated hydrocarbons from carbon monoxide and hydrogen, A., 440.
- Hoover, G. I., and Rideal, E. K., decomposition of ethyl alcohol at the surface of thoria. I., A., 215. decomposition of ethyl alcohol at the surface of thoria. II. Adsorption on the thoria catalyst, A., 215.
- Hoover, G. I. See also Funnell, W. S.
- Hoover, W. C., Fritz, R. D., Cahill, E. F., and Goodrich Co., B. F., grinding and separating apparatus, (P.), B., 432.
- Hope, E., manufacture of vitreous masses, (P.), B., 260.
- Hope, E., and Atack, F. W., manufacture of glass or glass-like objects, (P.), B., 842*.
- Hopfeld, R., and Nolden, C. P., coating of metals with aluminium or magnesium or aluminium or magnesium alloy, (P.), B., 912.
- Hopff, H. See I. G. Farbenind. A.-G.
- Hopfield, J. J., nitrogen series in the ultra-violet, A., 998.
- Hopfield, J. J. See also Dieke, G. H., and Ellsworth, V. M.
- Hopkins, B. S., illium, the now rare earth, A., 814.
- Hopkins, B. S. See also Stover, N. M.
- Hopkins, E. S., manganese interference in the *o*-tolidine test for available chlorine, B., 521.
- Hopkins, F. G., isolation of glutathione, A., 478.
- Hopkins, F. W., separation and analysis of pigments in lacquer, B., 118.
- Hopkins, H. A., apparatus for treating crude oils, (P.), B., 386.
- Hopkins, H. H. See Glatfield, J. W. E.
- Hopkins, R. H., original gravity [of beers], B., 567. yeast reproduction in worts of varying original gravities, B., 567.
- Hopkinson, E., Gibbons, W. A., and Naugatuck Chemical Co., treatment [purification] of rubber latex, (P.), B., 790.
- Hopkinson, E., and Naugatuck Chemical Co., mixing substances with rubber latex, (P.), B., 120*.
- Hopwood, J. M. See Hall, R. E.
- Hori, H. See Weimarn, P. P. von.
- Hori, T., hydrogen band spectrum in the extreme ultra-violet, A., 1005.
- Horii, S., stencil sheet, (P.), B., 873*.
- Horiuchi, J., relation between orthobaric densities, A., 1019.
- Horn, D. W., and Crawford, R. E., cuprammonium salts. VII. A complex thiosulphate, A., 634.
- Horn, O. See Brand, K.
- Horne, A. S. See Carré, M. H.
- Horney, O. C., primer for cartridges, (P.), B., 380.
- Hornsey, J. W., and Granular Iron Co., treating cement mix and other materials, (P.), B., 77.
- Horrmann, P., and Kroll, N., resins. I. Soft, alcohol-soluble Manila copal, B., 609.
- Horsfall, R. S. See British Dyestuffs Corporation, Ltd.
- Horsfield, B. T. See Aluminum Co. of America.
- Horst, A. ter. See Fabriek van Chemische Producten.

- Horst, J. H., material for control of *Peronospora*, (P.), B., 233.
material for control of *Peronospora*, mildews, and vine moths, (P.), B., 233.
- Horsters, E. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Horton, F. See Davies, (Miss) A. C.
- Horvath, A. A., effect of turnips and turnip-juice on the blood-sugar, phosphorus, and cholesterol of rabbits, A., 792.
- Hosch, J. C., air-cleaning machine, (P.), B., 207.
- Hosdowich, J. M. See Chromium Products Corporation.
- Hosenfeld, M. See Siemens & Halske Akt.-Ges.
- Hosford, W. F., and Western Electric Co., Inc., drying and storing dried material preparatory to processing, (P.), B., 719.
- Hoshino, S. See Hirasawa, M.
- Hoshino, T. See Majima, R.
- Hoskins, C. R. See Dawson, H. M.
- Hoskins, F. M., and Snyder, F. F., absence of hypoglycæmia after intraperitoneal administration of insulin to well-fed rabbits, A., 1222.
- Hoskins, W., induction furnace, (P.), B., 943.
- Hoskins, W. M. See De Aberle, S. B.
- Hosmer, F. E., producing natural gas gasoline, (P.), B., 274.
- Hosoda, K. See Itano, A.
- Hosoda, T., behaviour of *o*-nitrobenzaldehyde, *o*-aminobenzaldehyde, and anthranil in the animal organism, A., 171.
- Hosoya, S. See Yaoi, H.
- Hostettler, F., preparation of non-fermented beverages, (P.), B., 503.
- Hotta, K., mastic-sol and proteins, A., 511.
- Hottel, H. C., heat transmission by radiation from non-luminous gases, B., 735.
- Houben, J., [nuclear condensation of phenols with nitriles], A., 870.
- Houben, J. [with Blaese, G.], nuclear condensation of phenols and phenolic ethers with nitriles to ketimines and ketones of phenols and phenolic ethers, A., 143.
- Houben, J., and Fischer, Walther, nuclear condensation of phenols and phenolic ethers with nitriles to ketimines and ketones of phenols and phenolic ethers. II. Syntheses with anisole, *o*-bromoisole, phenetole, *o*-, *m*-, and *p*-tolyl ethers, veratrole, and resorcinol ethers, A., 1078.
- Houben, J., and Pfankuch, E., camphor and terpenes. V. Addition of hydrocyanic acid to camphorimine, fenchimine, menthimine; cyanohydrins of camphor and menthone, A., 364.
- Houdremont, E., and Bürklin, E., changes of volume on cold-working steel, B., 143.
- Houget, J., Mayer, A., and Plantefol, L., special form of biological oxidation [of oxalic acid in presence of a moss], A., 905.
- Hough, W. S. See Thompson, J. A.
- Houghton, A. S. See Mourea, C.
- Houldsworth, H. S. See Wood, J. F. L.
- Houot, See Travers, A.
- Houser, J. N. See Jones, E. M.
- Houssay, B. A., Marenzi, A. D., and Mazzocco, P., action of snake venom *in vivo* on the gases and salts of the blood, A., 74.
- Houssay, B. A., and Mazzocco, P., effect of snake venom on the diffusion of potassium, phosphorus, and hamoglobin, and on the formation of lactic acid in different organs, A., 73.
- cerebral and cardiac glycogen and muscular lactic acid in adrenalectomised rats, A., 1105.
- Houston, W. V., fine structure and wave-lengths of the Balmer lines, A., 81.
fine structure of the helium arc spectrum, A., 489.
intensities in the hydrogen fine structure, A., 997.
- Houtermans, F. G., fluorescence bands of mercury vapour, A., 292.
photo-electric ionisation of mercury vapour, A., 391.
- Hove, T. van, direct introduction of substituents in aromatic mercaptans, A., 555.
nitration of mixed dihalogen derivatives of benzene. I. and II., A., 757.
direct introduction of substituents in aromatic mercaptans, A., 1065.
- Howald, A. M., penetrance of oily fluids in wood; neglected factors influencing penetration and absorption of creosotes, petroleum oils, and creosote-petroleum mixtures, B., 603.
penetrance of oily fluids in wood, B., 702.
- Howald, A. M., and Grasselli Chemical Co., wood preservation, (P.), B., 751*.
- Howalt, W., and Cavett, E. S., tannery waste disposal, B., 791.
- Howard, C. D., and Civen, N., detection of hydrogen peroxide in beverages preserved with this compound, B., 154.
- Howard, E. J., and Patterson, W. H., influence of dissolved salts on the mutual miscibility temperature of the systems ethyl alcohol or methyl alcohol-paraffins, A., 15.
miscibility tests of dilute solutions of chromic chloride hexahydrates, A., 15.
- Howard, F. A., Clark, E. M., Carringer, J. R., and Standard Development Co., art of pyrogenetic conversion of hydrocarbon oils, (P.), B., 182*.
- Howard, F. A., Loomis, N. E., and Standard Development Co., continuous distillation of oil, (P.), B., 273.
art of distilling oils, (P.), B., 806.
- Howard, F. A., and Standard Development Co., joint manufacture of carburetted water-gas and volatile hydrocarbon motor fuels, (P.), B., 134.
cracking [hydrocarbon] oils, (P.), B., 162.
continuous distillation of petroleum oils, (P.), B., 180.
- Howard, F. H. See King, J. F.
- Howard, G. C., purifying and concentrating sulphur dioxide, (P.), B., 75.
- Howard, H., and Grasselli Chemical Co., insecticide, (P.), B., 311.
manufacture of ammonium nitrate, (P.), B., 628.
process of purifying cadmium, (P.), B., 847.
manufacture [purification] of sodium phosphate, (P.), B., 907.
- Howard, J. W., isopropyl- and butyl-trichloromethylcarbinols, A., 538.
- Howard, N. J., and Thompson, R. E., chlorine studies and some observations on taste-producing substances in water, and the factors involved in treatment by the super- and de-chlorination method, B., 204.
- Howard, W. R., and Universal Oil Products Co., treating hydrocarbons, (P.), B., 673.
- Howard, W. R. See also Egloff, G.
- Howcott, H. A. W., oil-refining apparatus, (P.), B., 962.
- Howe, J. L., ruthenium. X. "Isomeric" chlorides, A., 1157.
ruthenium. XI. Volumetric determination of ruthenium, A., 1162.
- Howell, E., physical structure of cast iron and its relation to cupola practice, B., 254.
- Howell, O. R., molecular structure in solution. I. Densities and viscosities of aqueous solutions of cobalt chloride and hydrochloric acid, A., 205.
molecular structure in solution. II. Refractive indices and surface tensions of aqueous solutions of cobalt chloride and hydrochloric acid, A., 1136.
- Howell, W. H., jun., production of paper pulp, (P.), B., 935.
- Howes, C. C. See Thomas, J. B.
- Howes, H. L., and Slaterry, (Miss) M. K., bead spectra, A., 918.
- Howes, H. L. See also Nichols, E. L.
- Howes, H. S. See McBain, J. W.
- Howes, R. T. See Black, J. C.
- Howlett, F. S., nitrogen and carbohydrate composition of the developing flowers and young fruits of the apple, A., 908.
- Howlett, M., & Co., Ltd. See Radiation, Ltd.
- Hoxton, L. G., and Beams, J. W., time interval between excitation and emission for fluorescein, A., 1007.
- Hoyle, E., and Zilva, S. S., antiscorbutic fraction of lemon juice. VI., A., 1224.
- Hoyt, A. S., [gluten] food product, (P.), B., 857.
- Hoyt, L. F., and Ellenberger, E. P., fumigation tests with chloropierin [on foodstuffs, etc.], B., 376.
- Hoyt, L. F. See also Handy, J. A.
- Hoz, H., Bernoulli, W., Link, A., and Société Anonyme J. R. Geigy, process of dyeing and printing acetylcellulose, (P.), B., 139*.
- Hozer, L., and Niementowski, S. von, synthesis and derivatives of acridinic acid, A., 675.
- Hrdlička, J., influence of pre-exposure and exceptions to the law of reciprocity in photography, B., 670.
action of potassium permanganate on the photographic plate, and exceptions to the law of reciprocity, B., 893.
- Hrubesky, C. E. See Browne, F. L.
- Hrynakovski, K., viscosity of saturated solutions of certain sodium and potassium salts, A., 619.
relation between the surface of crystals and their mass and volume, A., 817.
- Huang, T. C. See MacInnes, D. A.
- Hubbard, A. E. See Josi, S. E.
- Hubbard, C. C. See Goldman, M. H.
- Hubbard, D. See Carroll, B. H.

- Hubbard, J. C., and Loomis, A. L., sonic interferometer for liquids, A., 849.
- Hubbard, K. H. See Carman, A. P.
- Huber, H., Kirschfeld, L., and Sieverts, A., vanadium, titanium, and hydrogen, A., 105.
- Huber, J. See I. G. Farbenind. A.-G.
- Huberich, K. See I. G. Farbenind. A.-G.
- Hudig, G., determination of the lime requirement of humus sandy soils, B., 309.
- Hudig, J., and Meyer, C., cultivation sickness in reclaimed peat soils, B., 21.
- Hudson, A. H. See North, C. E. H.
- Hudson, C. S., relation between rotatory power and structure in sugar group. I., A., 230.
- Hudson, F., analysis of chrome[-tanned] leather and mechanism of the chrome-tanning process, B., 708.
- Hudson, H. See Sheppard, S. E.
- Hudson, J. H. See Sheppard, S. E.
- Hübner, H. See Gerngross, O.
- Hückel, W., field of applicability of classical stereochemistry and Weissenberg's geometrical stereochemistry, A., 129.
- Hückel, W., stereochemistry of bicyclic ring systems. III. Strain in camphor and *trans*-hexahydrohydriindene, A., 773.
- Hückel, W., and Friedrich, H., stereochemistry of bicyclic ring systems. III. Hexahydrohydriindene and its derivatives, A., 238.
- Hückel, W., Mentzel, R., Brinkmann, E., and Kamenz, E., stereochemistry of bicyclic ring systems. II. Decahydronaphthalene and its derivatives. (2) β -Substituted decahydronaphthalenes, A., 238.
- Hückel, W., and Stept, F., stereochemistry of bicyclic ring systems. IV. Decahydroquinoline, A., 572.
- Hückel, W., and Wiebke, F., derivatives of succinic and glutaric acids with cyclic, quaternary carbon atom, A., 150.
- Hülsbruch, W. See Schulz, E. H.
- Hülsmeier, C., method of diminishing the internal rusting of hot-water apparatus, (P.), B., 894.
- Hüneke, H., absorption of light by certain aromatic aminoacids in the ultra-violet, A., 711.
- Hünemörder, (Miss) M., röntgenographic studies with metastyrene, B., 340.
- Hünemörder, (Miss) M. See also Hauser, E. A.
- Hürliman, W. See Karrer, P.
- Hürlimann, H. See Karrer, P.
- Hürthle, R., fate of glycuronic and galacturonic acids in the animal organism, A., 374.
- Hüssy-Bühler, W. See Herzog, H.
- Hüttenwerke Tempelhof A. Meyer. See Meyer, L.
- Hüttig, G. F., and Brodtkorb, F., hydrogen. VI. Compounds of hydrogen with sodium, A., 529.
- Hüttig, G. F., and Döbling, H., identification of hydroxides in hydrogels, A., 640.
- Hüttig, G. F., and Steudemann, W., lithium. VI. Thermal analysis of the systems lithium halides-water, A., 517.
- Hüttig, G. F. See also Joos, G.
- Hützen, P. See Zeche M. Stinnes.
- Huey, H. I., and Sayles Finishing Plants, Inc., production of wool-like effects on cotton fabrics, (P.), B., 214.
- Huff, L. C., and Universal Oil Products Co., removal of deposited material from cracking plant, (P.), B., 67.
- Huff, L. C., process and apparatus for treating oils, (P.), B., 291.
- Huff, L. C., conversion [cracking] of hydrocarbon oil, (P.), B., 961.
- Hufferd, R. W., a Grignard starter, A., 865.
- Huffman, C. C., compositions for colouring hair, (P.), B., 139*.
- Huffman, C. F. See Robinson, C. S.
- Huffman, H. M. See Parks, G. S.
- Hugel, and Friess, J., hydrogenation of naphthalene at high temperature and pressure without catalysts, A., 1178.
- Hugel, G., report on the processes described by M. E. Schmitz in sealed notes nos. 2038, 2049, and 2173, B., 385.
- Hugetz, A. M. See Skrabal, A.
- Huggett, A. S., foetal blood-gas tensions and gas transfusion through the placenta of the goat, A., 369.
- Huggett, J., and Chaudron, G., temperatures of magnetic transformations in the system iron-iron sesquioxide, A., 207.
- Huggins, M. L., atomic radii. II., A., 95.
- Huggins, M. L., crystal structure of tetramethylammonium chloroplatinate, A., 1014.
- Huggins, M. L., and Magill, P. L., crystal structures of mercuric and mercurous iodides, A., 1129.
- Huggler, K. See Zetzsche, F.
- Hugh, W. E., and Kon, G. A. R., chemistry of the three-carbon system. XVI. Effect of bridged and unsaturated rings on tautomerism, A., 1195.
- Hugh, W. E., Kon, G. A. R., and Linstead, R. P., chemistry of the three-carbon system. XV. Pulegone and isopulegone, A., 1195.
- Hughes, A. L., and Jauncey, G. E. M., radiation from the mutual annihilation of protons and electrons, A., 1004.
- Hughes, A. L., and Skellett, A. M., dissociation of hydrogen by electrons, A., 811.
- Hughes, A. L., and Thomas, A. R., absorption of resonance radiation in mercury vapour, A., 1118.
- Hughes, A. L. See also Hagenow, C. F., and Jauncey, G. E. M.
- Hughes, C. H. See Semet-Solvay Co.
- Hughes, E. B. See Lampitt, L. H.
- Hughes, H. E., and Weed Control Co. of California, composition for destroying weeds, (P.), B., 567.
- Hughes, H. I. See Orton, K. J. P.
- Hughes, J. S., Fiteh, J. B., Cave, H. W., and Riddell, W. H., relation between vitamin-C content of diet and milk in the cow, A., 382.
- Hughes, J. S., Titus, R. W., and Smits, B. L., increase in the calcium of hen's blood accompanying egg production, A., 989.
- Hughes, L. M. See Mitchell, T. A.
- Hugill, W., and Rees, W. J., influence of iron oxide and iron sulphides on the rate of quartz conversion in commercial silica brick manufacture, B., 442.
- Hugonin, G., bating action and methods of measuring enzymic activity of natural and artificial bates, B., 342, 420.
- Huisman, J. See Duisberg, W.
- Hukuda, K., semi-quantitative spectral analysis of calcium, strontium, barium, and lithium, A., 745.
- Hulburt, E. O. See Crew, W. H.
- Hull, S. M., and Western Electric Co., Inc., organic moulding composition, (P.), B., 947.
- Hulmer, J., electrolytic plating machine, (P.), B., 117.
- Hulot, P., analysis and preparation of cadmium sulphides, A., 431.
- Hulsof, H., tangential force in the surface layers of liquids, A., 930.
- Hulthén, E., band spectrum of calcium hydride, A., 185.
- Hulthén, E., fine structure and electron terms in band spectra, A., 1121.
- Hulthén, E., and Nakamura, S., spectra of NH compounds, A., 185.
- Hultman, G. H., method of producing pure aluminium hydroxide, (P.), B., 74.
- Humbbeck, F., sterilising milk and other products in glass bottles or other containers, (P.), B., 428.
- Humberstone, J. E., roller crushing or grinding mills or machines, (P.), B., 575.
- Humble Oil & Refining Co. See Lewis, W. K.
- Humboldt, E. S., and Pacific Lumber Co., wooden battery separator, (P.), B., 607.
- Hume, J., and Topley, B., density of calcium carbonate hexahydrate, A., 12.
- Hume, J., rate of decomposition of calcium carbonate hexahydrate, A., 526.
- Hume-Rothery, W., connexion between chemical valency, electron grouping, and crystal structure, A., 398.
- Hume-Rothery, W., intermetallic compounds. VI. Reaction between solid magnesium and liquid tin, A., 1029.
- Hume-Rothery, W., and Rowell, S. W., the system magnesium-cadmium, B., 817.
- Humfeld, H. See Clark, N. A.
- Humphrey, G. C. See Hart, E. B.
- Humphrey, G. J. See Medes, G.
- Humphrey, H. A., and Atmospheric Nitrogen Corporation, catalytic reactions [ammonia], (P.), B., 218*.
- Humphrey, H. A. See also Synthetic Ammonia & Nitrates, Ltd.
- Humphrey, W. G. See Chattaway, F. D.
- Humphreys, R. W. See Pryde, J.
- Humphreys & Glasgow, Ltd., and Bosler, W. T., apparatus for cooling coke, (P.), B., 722.
- Humphreys & Glasgow, Ltd., and Stelfox, J. C., manufacture of water-gas, (P.), B., 594, 867.
- Humphreys & Glasgow, Ltd., manufacture of gas, (P.), B., 644.
- Humphreys & Glasgow, Ltd., and Terzian, H. G., apparatus for carburetting water-gas: [automatic] apparatus for making water-gas and other cyclical gas-making processes, (P.), B., 674.

- Humphries, C. H., and Metals Protection Corporation, production of corrosion-resisting coatings on iron and steel, (P.), B., 194, 223.
- Humphries, C. H. See also Metals Protection Corporation.
- Humphry, R. H., and Jane, R. S., cataphoresis in colourless sols. I. Charge on caoutchouc in benzene, A., 514.
- Humphrys, N. H., steaming in continuous vertical retorts: theory and practice, B., 545.
- Hund, F., interpretation of molecular spectra. I. and II., A., 183, 495.
- symmetrical character of the terms corresponding with systems containing similar particles, derived by quantum dynamics, A., 801.
- interpretation of molecular spectra. III. Rotational and vibrational spectra of molecules containing more than two atoms, A., 809.
- Hunn, J. V. See Watkins, G. B.
- Hunt, A. P., making a self-preserving acid milk product especially adapted for the lower animals, (P.), B., 503.
- Hunt, C. J., and Infield, E. G., drying apparatus, (P.), B., 719.
- Hunt, W. See Parsons, E. B.
- Huntenburg, W. See Schlubach, H. H.
- Hunter, D., and Aub, J. C., lead. XV. Effect of the parathyroid hormone on the excretion of lead and calcium in lead poisoning, A., 702.
- Hunter, G., and Eagles, B. A., non-protein sulphur compounds of blood. I. Sympectothion, A., 477.
- non-protein sulphur compounds of blood. II. Glutathione, A., 477.
- glutathione, A., 478.
- colorimetric determination of cystine and glutathione, A., 478.
- cystine in liver, A., 478.
- Hunter, J. See McGougan, J.
- Hunter, R. F., aminobenzthiazoles. V. Stability of the 1-alkylaminobenzthiazole bromides, A., 263.
- Hunter, R. F., and Soyka, C., m. p. of pure *s-p*-bromophenyl-*n*-hexylthiocarbamide, A., 236.
- aminobenzthiazoles. VI. Stability of the 5-bromo-1-alkylaminobenzthiazole bromides, A., 263.
- Hunter, R. F., and Styles, E. R., aminobenzthiazoles. IX. The unsaturation of aminobenzthiazoles containing a static triad system, and the synthesis of some 1-dimethylaminobenzthiazoles, A., 680.
- Hunter, R. F. See also Dyson, G. M.
- Hunter, S., settling tanks, (P.), B., 1.
- Hunter, W. K., and Nichols, M. F., production of hydrated lime, (P.), B., 777.
- Huntress, E. H. See Moore, F. J.
- Huntsinger, M. See McClure, C. W.
- Hunziker, O. F., and Nissen, B. H., lactose solubility and lactose crystal formation. II., A., 859.
- Huppert, E. See Zellner, J.
- Huppmann, G. See Pummerer, R.
- Hurd, C. D., Engel, E. W., and Vernon, A. A., conduction process in glass. I. Replacement of the sodium by alkali metals and ammonium, A., 315.
- Hurd, C. D., and Spence, L. U., structure of hydroxyureas [hydroxycarbamides] and of carbamazides, A., 232.
- Hurd, C. D., and Webb, C. N., use of Grignard reagents in attempted syntheses of asymmetric allene bases, A., 336.
- Hurlston, E. H., effect of solid compounding ingredients as softeners [for rubber], B., 149.
- Hurst, R. H., determination of sulphur dioxide in sugars, B., 729.
- Hurter, H., electrolysis of glass. I., A., 25.
- Hurtley, W. R. H., and Smiles, S., derivatives of 2-phenyl-1:3-benzdithiole, A., 466.
- Hurxthal, L. M. See Bock, A. F., Dill, D. B., and Henderson, L. J.
- Husa, L. M. See Husa, W. J.
- Husa, W. J., effect of amino-acids and other compounds on the activity of urease, A., 175.
- Husa, W. J., and Husa, L. M., effect of benzoic and cinnamic acids on the rate of development of rancidity in lard, B., 730.
- Husain, S., and Partington, J. R., ferric and manganese dichromates, A., 123.
- Husband, A. D., and Godden, W., determination of chlorine in milk, A., 273.
- determination of sodium, potassium, and chlorine in foodstuffs, B., 397.
- Husband, A. D. See also Richards, M. B.
- Hush, R., machine for breaking ore and other minerals, (I.), B., 575.
- Huston, R. C., Lewis, W. C., and Grotemut, W. H., action of aromatic alcohols on aromatic compounds in presence of aluminium chloride. IV. Condensation of some secondary alcohols with phenol, A., 659.
- Hutcheson, R. F., bagasse as fuel, B., 311.
- Hutchins, W. D. See Brodie, R. K.
- Hutchinson, E. W. See Silica Gel Corporation.
- Hutchinson, H. B. See Richards, E. H.
- Hutchinson, R., and Woodlands, Ltd., heat-treatment of wheaten cereals, (P.), B., 615*.
- Hutchisson, E., quantum theory of the specific heat of hydrogen. II. Comparison of various theories with experiment, A., 88.
- energy of the crossed-orbit model of the hydrogen molecule, A., 290.
- Huttinger, C. A., and Acme Rayon Corporation, production of threads from viscose, (P.), B., 935.
- Huxham, T. S., and American Insulator Corporation, hardening fusible phenolic resins, (P.), B., 85.
- Huxley, H. G. L., ionisation by collision, A., 709.
- Huybrechts, M., and Ramelot, H., solubility of lead sulphate in water and solutions of electrolytes, A., 536.
- Hybinette, N. V., manufacture of malleable nickel, (P.), B., 527.
- Hybinette, V. E., manufacture of a light aluminium alloy, (P.), B., 561.
- Hyde, A. C., thermionic valve [cathode], (P.), B., 145.
- Hyde, A. P. See Simonds, F. M.
- Hyde, R. W. See Dwight & Lloyd Metallurgical Co.
- Hydraulic Brake Co. See Sherbino, M. R.
- Hydraulic Engineering Co., Ltd., and Rutherford, E. D., separation of the fibre from the pulp of sisal or like leaves, (P.), B., 905.
- Hydrocarbon Refining Process Co., Inc. See McMichael, P.
- Hylleraas, E. A., equilibrium position of the atoms in β -quartz and its relation to double refraction and optical rotation, A., 1015.
- Hynd, A., action of glucosone on normal animals (mice) and its possible significance in metabolism, A., 480.
- antagonism of glucosone and cyanides *in vivo*, A., 1110.
- effect of certain sugar derivatives on insulinised mice, A., 1115.
- Hynd, A., and Macfarlane, M. G., interaction of amino-compounds and carbohydrates. III. Action of nitrous acid on certain nitrogenous sugar derivatives and related compounds, A., 43.
- behaviour of whole blood towards maltose *in vitro*, A., 483.
- Hyniski, V. P., and Antipine, P. F., electrometallurgy of magnesium and its alloys; pressure of the binary system lithium fluoride-magnesium fluoride, A., 1145.
- Hyslop, J. F., Gumm, R., and Biggs, H., some corrosion and erosion phenomena and their bearing on the macrostructure of refractories, B., 220.
- Hyslop, J. F., and Rooksby, H. P., X-ray patterns of mullite and sillimanite, B., 219.

I.

- I. G. Farbenind. A.-G., process for reducing nitro-compounds, (P.), B., 8.
- drying gases and vapours, (P.), B., 33.
- working with reducing gases in apparatus made of copper or its alloys, (P.), B., 33.
- manufacture of chrome alums, (P.), B., 43.
- manufacture of solid polymers of formaldehyde, (P.), B., 59.
- preparation of azo-dyes, (P.), B., 69, 404, 597, 646.
- manufacture of chromates, (P.), B., 74.
- manufacture of hydrocyanic acid, (P.), B., 74, 330.
- manufacture of silicic acid gel, (P.), B., 74.
- manufacture of wood pulp, (P.), B., 104.
- manufacture of new complex antimony compounds, (P.), B., 125, 573.
- manufacture of 1:4-diarylamino-5:8-di[hydr]oxyanthraquinones, (P.), B., 136.
- manufacture of pure iron, (P.), B., 144, 527, 682.
- reduction of aromatic nitro-compounds, (P.), B., 156, 742.
- producing fast printings [on textile materials], (P.), B., 216.
- manufacture of phosphoric acid, (P.), B., 217.
- process of vulcanising rubber, (P.), B., 230.

I. G. Farbenind. A.-G., manufacture of new condensation products of substituted acroleins, (P.), B., 230.
 packings for apparatus working at high pressures, (P.), B., 240.
 emulsifying agents, (P.), B., 241.
 tanning agents, (P.), B., 261, 282, 758.
 manufacture of silver halide emulsion, (P.), B., 269.
 manufacture of benzylcelluloses, (P.), B., 296.
 cellulose acetate products, (P.), B., 296.
 manufacture of porous adsorbents, (P.), B., 299.
 production of phosphorus, phosphorus pentoxide, and phosphoric acid, (P.), B., 299.
 manufacture of copper sulphate from precipitates containing copper, (P.), B., 299.
 preparation of dyed lacquers, (P.), B., 305.
 dyeing inks, (P.), B., 305.
 apparatus for treating gases and vapours with silent electric discharges, (P.), B., 320.
 manufacture of sulphuric acid esters of oxyalkyl compounds of the aromatic series [sulphatoalkyl ethers of phenols], (P.), B., 324.
 manufacture of monoazo-dyes, (P.), B., 325.
 manufacture of active colloids, (P.), B., 330.
 decomposition of hydrogen sulphide and its removal from industrial gases, (P.), B., 331.
 manufacture of colour lakes, (P.), B., 340, 742.
 manufacture of [anti-knocking] liquid fuels, (P.), B., 357, 402.
 manufacture of diamino- and aminohydroxy-diaryl sulphones from sulphinosalicylic acids and quinoneimines, (P.), B., 360.
 dyeing and printing cellulose esters, (P.), B., 363, 407.
 recovery of sulphur [from charcoal], (P.), B., 365.
 removal of liquid polymerides from synthetic rubber, (P.), B., 372.
 manufacture of writing inks, (P.), B., 387.
 production of iron carbonyl, (P.), B., 388, 481.
 manufacture of chromates from chromium ores, (P.), B., 388.
 treatment of minerals, slags, or the like, (P.), B., 390.
 extraction of perfumes from flowers, (P.), B., 398.
 heating granular materials, (P.), B., 400.
 dyeing wool and silk, (P.), B., 407.
 dyeing leather with acid azo-dyes, (P.), B., 407.
 preparation of padding-baths, (P.), B., 407.
 regeneration of catalysts used in the production of phosphorus pentoxide or phosphoric acid by the interaction of phosphorus or phosphoretted hydrogen and water vapour, B., 409.
 manufacture of concentrated solutions of formaldehyde or of paraformaldehyde, (P.), B., 428.
 process and apparatus for feeding solids and gases into reaction vessels under pressure, (P.), B., 432.
 preparation of stable diazo-compounds, (P.), B., 437.
 combating injurious fungi, (P.), B., 454.
 manufacture of aromatic derivatives of formamide, (P.), B., 458.
 manufacture of alkyl formates, (P.), B., 458.
 removal of benzol from gases, (P.), B., 467.
 production of phosphoric acid and hydrogen, (P.), B., 481.
 manufacture of active silica, (P.), B., 481.
 metallic cores for electromagnets, etc., (P.), B., 493.
 preparation of baking and effervescent powders, etc., (P.), B., 504.
 manufacture of alkylnaphthalenes chlorinated in the nucleus, (P.), B., 518.
 manufacture of anthraquinone derivatives, (P.), B., 518, 743.
 manufacture of chromic chloride, (P.), B., 522.
 manufacture of hydrated chromic chloride, B., 522.
 manufacture of phosphorus acids and hydrogen, (P.), B., 522.
 production of cements, (P.), B., 524.
 reduction of iron ores, (P.), B., 527, 942.
 mounting for electrodes of closed electric furnaces, (P.), B., 530.
 catalytic dehydrogenation, (P.), B., 541, 669.
 manufacture of adsorbents, (P.), B., 544.
 grounding or padding of textile materials, (P.), B., 552.
 production of fast mixed dyeings on silk, (P.), B., 553.
 preparations for dyeing cellulose esters, (P.), B., 553.
 purification of hydrogen obtained by the interaction of phosphorus and steam, (P.), B., 556.
 manufacture of glycol ethers, (P.), B., 571.
 manufacture of esters, (P.), B., 571.
 increasing the weight per unit volume of pulverulent heaped material, (P.), B., 591.

I. G. Farbenind. A.-G., manufacture of liquid and other hydrocarbons and derivatives thereof from coal and like materials, (P.), B., 595, 695, 805, 868.
 manufacture of hydrocarbons and derivatives thereof from coal and like solid materials, (P.), B., 595.
 fulling of animal fibres, (P.), B., 599.
 production of material resembling celluloid, (P.), B., 599.
 production of sodium sulphide, (P.), B., 601.
 production of alumina, (P.), B., 601.
 manufacture of phosphorus and phosphorus oxides, (P.), B., 601.
 working with carbon monoxide under pressure, (P.), B., 601.
 prevention of sticking of the material in continuous carbonisation processes, (P.), B., 626.
 production of alkali hyposulphites, (P.), B., 628.
 manufacture of condensation products of crotonaldehyde, (P.), B., 635.
 destructive hydrogenation of coal, tar, mineral oils, etc., (P.), B., 644.
 manufacture of motor fuel, (P.), B., 645.
 purification of hydrocarbons, (P.), B., 645.
 manufacture of diazo-preparations, (P.), B., 647.
 manufacture of alkali bisulphate, (P.), B., 652.
 manufacture of active adsorbent and catalytic masses, (P.), B., 653.
 use of reducing gases in containers made of copper or its alloys, (P.), B., 658.
 non-caking fertiliser, (P.), B., 663.
 manufacture of acid [O-acetyl] derivatives of $\alpha\alpha'$ -dimethyl- γ -hydroxypiperidino- β -carboxylic [4-hydroxy-2 : 6-dimethylpiperidine-3-carboxylic] acid esters, (P.), B., 669.
 purification of alkali-metal cyanide solutions containing sulphides, (P.), B., 677.
 manufacture of acid-proof cementing compositions, (P.), B., 678.
 manufacture of hydrocarbons and derivatives thereof from natural oils and other bitumens, (P.), B., 695, 740.
 manufacture of 1-phenyl-3-methyl-5-pyrazolone, (P.), B., 714.
 drying agent for gases, (P.), B., 736.
 production of hydrocarbons [from coal, etc.], (P.), B., 741.
 manufacture of compounds of aromatic *p*-diamines with sulphur dioxide, (P.), B., 742.
 manufacture of [chrome] dyes of the triarylmethane series, (P.), B., 742.
 manufacture of vat dyes of the 1-thionaphthen-2'-indoleindigo series, (P.), B., 743.
 manufacture of alkylated or cycloalkylated arylsulphonic acids, (P.), B., 743.
 desizing process, (P.), B., 745.
 production of fibre half-stuff, (P.), B., 746.
 production of resinous condensation products from amines of the aromatic series; [resists for batik dyeing], (P.), B., 756.
 manufacture of azine dyes, (P.), B., 772.
 manufacture of wool and leather dyes, (P.), B., 772.
 manufacture of leuco-hydroxyanthraquinones, (P.), B., 773*.
 dyeing cellulose acetate silk, (P.), B., 776.
 treatment of fibrous materials and textiles; [use of wetting-out agents in oiling, sizing, etc.], (P.), B., 776.
 manufacture of alkoxyamino-[8-amino-6-alkoxy]-quinolines, (P.), B., 797.
 manufacture of new azine dyes and intermediate products, (P.), B., 808.
 manufacture of products of conversion of *pericyanonaphthalene*-sulphonic acids [1 : 8-hydroxy- and -amino-naphthoic acids], (P.), B., 808.
 manufacture of new products of the anthraquinone series [hexahydroarylaminoanthraquinones; acid wool dyes], (P.), B., 809.
 manufacture of new vat dyes containing sulphur [green indigoid dyes], (P.), B., 809.
 manufacture of salts of *o*-aminophenylpropionic acid, its homologues, substitution products, and analogues, (P.), B., 810.
 dyeing and printing with ice colours, (P.), B., 812.
 rollers for calendering machines, (P.), B., 812.
 production of magnesium chromate, (P.), B., 814.
 manufacture of resinous condensation products from aryloxy-acetic acids and aldehydes, (P.), B., 822.
 production of hair felt, (P.), B., 825.
 manufacture of aldehydes, (P.), B., 828.

- I. G. Farbenind. A.-G., manufacture of organic compounds containing oxygen, (P.), B., 828.
 manufacture of substituted aromatic sulphonic acids, (P.), B., 828.
 process of transforming pulverulent substances into uniform small pieces for reaction with gases, (P.), B., 831.
 purification of hydrocarbons obtained by cracking processes, (P.), B., 836.
 manufacture of finely-divided azo-colouring matter [dyes] or lakes thereof, (P.), B., 837.
 manufacture of finely-divided solid materials, (P.), B., 837.
 manufacture of artificial resins, (P.), B., 851.
 converting difficultly soluble or insoluble colloidal carbohydrate ethers into new soluble products, (P.), B., 860.
 manufacture of nuclear aralkylated [naphthyl] alkyl ethers and their sulphonic acids [wetting-out agents], (P.), B., 860.
 manufacture of condensation products of aldehydes with ketones, (P.), B., 860.
 pulverulent fuels for use in operating internal-combustion engines, (P.), B., 866.
 manufacture of organic compounds, (P.), B., 868.
 manufacture of emulsions, (P.), B., 869.
 manufacture of benzanthrone derivatives, (P.), B., 870.
 means for increasing the wetting and cleaning power of aqueous liquids used for treating fibrous materials, (P.), B., 874.
 production of commercial lumpy ammonium carbonate, (P.), B., 877.
 treatment of crude nitrate of soda, (P.), B., 877, 906.
 improvement of magnesium alloys, (P.), B., 881.
 protective layers for photographic films, (P.), B., 893.
 decomposition of gaseous or vaporous hydrocarbons by means of water vapour, (P.), B., 900.
 manufacture of insoluble azo-dyes, (P.), B., 902.
 manufacture of dinaphthylidicarboxylic acids, (P.), B., 902.
 manufacture of dibenzanthronyls, (P.), B., 903.
 catalytic oxidation of organic compounds, (P.), B., 903.
 application of cellulose ethers or esters [dioxan as a solvent], (P.), B., 905.
 precipitation of heavy metals from ammoniacal solutions, (P.), B., 907.
 catalytic oxidation of carbon monoxide, (P.), B., 907.
 destructive hydrogenation of moist solid fuels, (P.), B., 930.
 manufacture of lacquers, etc., (P.), B., 947.
 manufacture of valuable organic compounds, (P.), B., 956.
 [solvent for use in] varnishes, shoe-creams, etc., (P.), B., 956.
 manufacture of aqueous solutions or emulsions of solvents or other liquids or solids insoluble in water, (P.), B., 965.
- I. G. Farbenind. A.-G., and Akt.-Ges. für Anilin-Fabrikation, triarylmethane dyes, (P.), B., 324.
 manufacture of ceruleinsulphonic acids, (P.), B., 325.
 obtaining light oils by washing gases, (P.), B., 357.
 manufacture of a non-hygroscopic pulverulent product from sulphite-cellulose waste liquor, (P.), B., 361.
 manufacture of articles from molten carbon, (P.), B., 370.
 manufacture of condensation products containing sulphur [tanning agents], (P.), B., 373.
 manufacture of azo-dyes, (P.), B., 550.
 manufacture of aralkylamines and their derivatives and intermediate products, (P.), B., 572.
 manufacture of aromatic aldehydes, (P.), B., 572.
 manufacture of photographic silver halide emulsions, (P.), B., 861, 893.
- I. G. Farbenind. A.-G., Aurednicek, A., Keiner, E., and Krech, R., dyeing acetate silk, (P.), B., 964.
 I. G. Farbenind. A.-G., and Bachstetz, M., motor fuels, (P.), B., 467.
 I. G. Farbenind. A.-G., and Badische Anilin- & Soda-Fabrik, production of glycol monoethers, (P.), B., 348.
 I. G. Farbenind. A.-G., and Bencker, F., production of hyposulphites by the action of amalgams on bisulphite solutions, (P.), B., 777.
 I. G. Farbenind. A.-G., and Benda, L., acylamidohydroxyphenyl-arsenious oxides, (P.), B., 460.
 stable and sterilisable solutions containing organic phosphorus and complex auro-compounds, (P.), B., 797.
 production of stable, sterilisable, complex aurosodium thiosulphate solutions, (P.), B., 956*.
 I. G. Farbenind. A.-G., Benda, L., and Sievers, O., benzoxazolone-arsine oxides [arsenoxides], (P.), B., 860*.
 benzoxazolonearsinic acids, (P.), B., 860*.
- I. G. Farbenind. A.-G., Benda, L., and Schmidt, W., *p*-dialkylaminoarylphosphinous acids, (P.), B., 173*.
 I. G. Farbenind. A.-G., and Benischek, A., filtration of gases with a high oxygen content, (P.), B., 897.
 I. G. Farbenind. A.-G., and Bernard, H., fixing basic dyes on [textile] fibres and other substrata, (P.), B., 215.
 I. G. Farbenind. A.-G., Böttcher, K., and Stolz, F., preparation of derivatives of 1-phenyl-2:3-dimethyl-5-pyrazolone, (P.), B., 460.
 I. G. Farbenind. A.-G., Bonrath, W., Lieske, R., and Thaus, A., process for increasing adhesiveness of dusting preparations for control of animal and plant pests, (P.), B., 233.
 I. G. Farbenind. A.-G., and Bosch, C., manufacture of fertilisers, (P.), B., 826*.
 I. G. Farbenind. A.-G., Brüning, G. von, and Nicodemus, O., production of esters of volatile organic acids, (P.), B., 237.
 I. G. Farbenind. A.-G., and Chemische Fabrik Griesheim-Elektron, recovery of volatile organic substances from gas mixtures, (P.), B., 423.
 production of celluloid-like masses, (P.), B., 552.
 production of azo-dyes on silk, (P.), B., 553.
 production of phosphoric acid, (P.), B., 555.
 production of phosphorus, (P.), B., 556.
 production of potash glass, (P.), B., 557.
 production of cobaltous acetate, (P.), B., 601.
 production of phosphorus pentoxide or phosphoric acid, (P.), B., 601.
 preventing the oxidation of magnesium and its alloys, (P.), B., 605.
 manufacture of preparations of diazo-salts for dyeing and printing, (P.), B., 646.
 manufacture of diazo-salts and of preparations therefrom, (P.), B., 647.
 manufacture of dry diazo-preparations, (P.), B., 647.
 production of azo-dyes and lakes insoluble in water, (P.), B., 697.
 dyeing cotton with vat and azo-dyes, (P.), B., 775.
 continuous distillation of crude carbon disulphide to obtain pure carbon disulphide, (P.), B., 907.
 dyeing of cellulose acetate silk, (P.), B., 936.
- I. G. Farbenind. A.-G., and Chemische Fabrik vorm. Weiler-ter Meer, manufacture of solutions [of fats, etc.], (P.), B., 339.
 manufacture of solutions [for varnishes, etc.], (P.), B., 340.
 I. G. Farbenind. A.-G., and Christ, W., ice-colour process, (P.), B., 276.
 I. G. Farbenind. A.-G., and Daimler, K., preparation of organic acids [synthetic tanning agents], (P.), B., 924.
 I. G. Farbenind. A.-G., Daimler, K., Balle, G., and Just, F., protection of animal fibres in mordant dyeing, (P.), B., 363.
 protecting animal fibres during treatment with alkaline solutions, (P.), B., 387.
 I. G. Farbenind. A.-G., and Dorrer, A., manufacture of yellow azo-dyestuffs, (P.), B., 135.
 I. G. Farbenind. A.-G., Duisberg, W., Hentrich, W., Weinand, C., and Zeh, L., dyeing of cellulose esters or ethers, (P.), B., 215.
 I. G. Farbenind. A.-G., and Durand & Huguenin, Société Anonyme, manufacture of products [indigosols] for dyeing or printing textile fibres and other materials, (P.), B., 772.
 I. G. Farbenind. A.-G., and Eichwede, H., preparation of azo-dyes, (P.), B., 359.
 I. G. Farbenind. A.-G., Eichwede, H., Fischer, E., and Müller, C. E., dyeing of cellulose esters, (P.), B., 905.
 I. G. Farbenind. A.-G., and Eisleb, O., preparation of γ -dialkylamino- α -hydroxy-acids and their derivatives (esters and amides), (P.), B., 428.
 I. G. Farbenind. A.-G., and Engelhardt, A., separation of organic gases from admixture with gases not readily absorbed, (P.), B., 241.
 I. G. Farbenind. A.-G., Engelhardt, R., and Lommel, W., determination of the substances causing luminosity in gases, vapours, or mixtures of gaseous substances, (P.), B., 210.
 I. G. Farbenind. A.-G., Ernst, O., and Nicodemus, O., manufacture of highly-active charcoal, (P.), B., 292*.
 I. G. Farbenind. A.-G., and Farbenfabriken vorm. F. Bayer & Co., manufacture of alanes of the anthraquinone series and derivatives thereof, (P.), B., 326.
 [increasing adhesiveness of] insecticidal and like powders, (P.), B., 344.
 method of emptying containers, (P.), B., 352.

- I. G. Farbenind. A.-G., and Farbenfabriken vorm. *F. Bayer & Co.*, manufacture of derivatives of the anthraquinone series, (P.), B., 743.
 manufacture of disazo- [mordant] dyes, (P.), B., 771.
 manufacture of active carbon, (P.), B., 805.
 manufacture of azo-dyes, (P.), B., 808.
- I. G. Farbenind. A.-G., and Farbwerke vorm. Meister, Lucius, & Brüning, producing fast-coloured resists under aniline black, (P.), B., 329.
 dyeing leather with acid azo-dyes, (P.), B., 329.
 manufacture of acid-proof cementing compositions, (P.), B., 333.
 manufacture of *o*-aminoarylpropionic acid, its substitution products or homologues, (P.), B., 347.
 manufacture of condensation products of the anthraquinone series, (P.), B., 360.
 manufacture of tetrahalogenated 4 : 4'-dimethylthioindigotins, (P.), B., 360.
 manufacture of hexasubstituted thioindigotins, (P.), B., 360.
 production of fast-coloured discharges on fast dyeings, (P.), B., 363.
 dyeing cellulose esters and ethers, (P.), B., 438, 874.
 manufacture of basic chromium salts [for tanning], (P.), B., 440.
 stabilising emulsions of wool oils and water, (P.), B., 451.
 manufacture of nuclear alkylated or *cyclo*alkylated aryl-sulphonic acids, (P.), B., 470.
 manufacture of condensation products of the anthraquinone series, (P.), B., 470.
 linings for vessels to resist acids, (P.), B., 484.
 manufacture of chromium-magnesium preparation suitable for tanning purposes, (P.), B., 497.
 dyeing mixed textiles, (P.), B., 520.
 manufacture of nickel catalyst, (P.), B., 528.
 manufacture of α -aroyl- β -naphthols and of condensation products of the benzanthrone series, (P.), B., 550.
 manufacture of vat dyes [of the dibenzanthrone series] containing nitrogen, (P.), B., 550.
 manufacture of carbocyclic or heterocyclic compounds, (P.), B., 550.
 manufacture of water-soluble condensation products, (P.), B., 563.
 manufacture of tanning agents, (P.), B., 565.
 manufacture of coloured dressings for leather, (P.), B., 565.
 manufacture of azo-dyes, (P.), B., 597, 743, 837, 901.
 manufacture of amines of the *cyclohexane* series, (P.), B., 597.
 manufacture of acid dyes, (P.), B., 598.
 preparing hair for felting, (P.), B., 599.
 preparation of emulsions, (P.), B., 618.
 manufacture of alkylated or aralkylated aromatic sulphonic acids, (P.), B., 618.
 reserving animal fibres, (P.), B., 628.
 manufacture of halogenated benzanthrone derivatives containing sulphur, (P.), B., 647.
 manufacture of condensation products of the benzanthrone series and of vat dyes containing nitrogen, (P.), B., 647.
 manufacture of halogenated dibenzpyronequinones, (P.), B., 647.
 splitting fats and oils, (P.), B., 660.
 manufacture of benzimidazolone-5-arsinic acids, (P.), B., 670.
 manufacture of water-soluble condensation products, (P.), B., 675.
 manufacture of cyclic hydrocarbons and derivatives thereof, (P.), B., 742.
 manufacture of indigoid dyes, (P.), B., 772.
 manufacture of *cyclohexylamines*, (P.), B., 809.
 manufacture of [thioindigoid] vat dyes, (P.), B., 809, 838.
 manufacture of cyclic hydrocarbons and derivatives thereof, (P.), B., 828.
 process for preparing benzanthrone derivatives [dye for wool and acetate silk], (P.), B., 837.
 manufacture of stable preparations of vat dyes, (P.), B., 869.
 manufacture of pyrazolone-azo-dyes, (P.), B., 869.
 manufacture of anthraquinone nitriles, (P.), B., 870.
 production of tertiary nitriles, (P.), B., 892.
 manufacture of heterocyclic compounds, (P.), B., 903.
 treatment of nitrocellulose [for lacquers] to render it safe during storage or transport, (P.), B., 905.
 manufacture of therapeutic agents, (P.), B., 924.
- I. G. Farbenind. A.-G., and Funcke, *F.*, vat dyestuffs of the anthraquinone series, (P.), B., 136, 211.
- I. G. Farbenind. A.-G., and Geisel, *W.*, preparation of condensation products of carbamide and formaldehyde, (P.), B., 452.
- I. G. Farbenind. A.-G., Griessbach, *R.*, and Giesen, *J.*, production of ammonium chloride from ammonia-soda mother-liquors, (P.), B., 814.
- I. G. Farbenind. A.-G., Griessbach, *R.*, Michael, *W.*, and Röhre, *K.*, preparation of metal hydroxides for use as catalysts, (P.), B., 482.
- I. G. Farbenind. A.-G., Griessbach, *R.*, and Röhre, *K.*, production of mono- and di-ammonium phosphate, (P.), B., 233.
 separate recovery of monopotassium phosphate and potassium nitrate from their mixed solutions, (P.), B., 481.
- I. G. Farbenind. A.-G., and Günther, *F.*, cellulose derivatives, (P.), B., 215.
 dyeing cellulose esters, (P.), B., 215.
- I. G. Farbenind. A.-G., Günther, *A.*, Haller, *J.*, and Köster, *E.*, fixation of basic dyes on cotton, (P.), B., 905.
- I. G. Farbenind. A.-G., Günther, *A.*, Schlegel, *W.*, and Thauss, *A.*, treatment of wool for the purpose of diminishing its affinity for acid and neutral-dyeing wool dyes, (P.), B., 214.
- I. G. Farbenind. A.-G., Hallensleben, *J.*, and Streitwolf, *K.*, manufacture of complex metallic arsenobenzene compounds, (P.), B., 203*.
- I. G. Farbenind. A.-G., and Haller, *J.*, preparation of mercaptans of the naphthalene series, (P.), B., 275.
- I. G. Farbenind. A.-G., and Heinze, *F.*, manufacture of diamino-diarylcaramides, (P.), B., 317*.
- I. G. Farbenind. A.-G., Henle, *F.*, and Vossen, *B.*, preparation of 6-chloro-2-nitrotoluene-4-sulphonic acid and 6-chloro-*o*-toluidine-4-sulphonic acid, (P.), B., 276.
- I. G. Farbenind. A.-G., and Herrdegen, *K.*, purification of alkali cyanide solutions containing sulphides, (P.), B., 777.
- I. G. Farbenind. A.-G., Herzberg, *W.*, and Ohlendorf, *H.*, dyeing, (P.), B., 776*.
- I. G. Farbenind. A.-G., and Hilcken, *V.*, manufacture of camphene, (P.), B., 974.
- I. G. Farbenind. A.-G., and Homolka, *B.*, photographic desensitiser, (P.), B., 509.
- I. G. Farbenind. A.-G., and Jannek, *J.*, recovering sulphur, (P.), B., 11.
 purifying gases [from iron carbonyl], (P.), B., 517*.
- I. G. Farbenind. A.-G., Jannek, *J.*, Wietzel, *G.*, and Stoewener, *F.*, recovery of volatile substances, (P.), B., 182*.
- I. G. Farbenind. A.-G., Jantsch, *G.*, and Bencker, *F.*, production of finely-divided cuprous oxide, (P.), B., 965.
- I. G. Farbenind. A.-G., Jellinek, *K.*, and Christ, *W.*, production of ice colours on cotton, (P.), B., 812*.
- I. G. Farbenind. A.-G., and Jensch, *H.*, manufacture of acridine derivatives, (P.), B., 574*.
- I. G. Farbenind. A.-G., and Just, *F.*, improvement of washing- and milling-fastness of acid dyeings on wool, (P.), B., 905.
- I. G. Farbenind. A.-G., and Kačer, *F.*, preparation of vat dyes of the anthraquinone series, (P.), B., 387.
 manufacture of vat dyes of the anthraquinone series, (P.), B., 901.
- I. G. Farbenind. A.-G., Kautzky, *H.*, and Thiele, *H.*, preparation of hyposulphites and related compounds, (P.), B., 482.
- I. G. Farbenind. A.-G., Kessler, *H.*, and Döring, *E.*, non-alkaline solutions or pastes of sulphide dyes, (P.), B., 212.
- I. G. Farbenind. A.-G., Kirchhoff, *R.*, Haugwitz, *R.*, and Cantor, *M.*, manufacture of disazo-dyes, (P.), B., 902.
- I. G. Farbenind. A.-G., Klatte, *F.*, and Söll, *J.*, production of methane, (P.), B., 860*.
- I. G. Farbenind. A.-G., and Klein, *R.*, production of multicoloured and black discharges on leather and artificial leather, (P.), B., 216.
- I. G. Farbenind. A.-G., and Knorr, *A.*, wetting-out agent and solvent, (P.), B., 249.
- I. G. Farbenind. A.-G., Kränzlein, *G.*, Greune, *H.*, and Sedlmayr, *R.*, vat dyes, (P.), B., 274.
- I. G. Farbenind. A.-G., Kränzlein, *G.*, Greune, *H.*, and Vollmann, *H.*, preparation of [quinone] vat dyes, (P.), B., 578.
- I. G. Farbenind. A.-G., and Kropp, *W.*, vulcanisation of rubber, (P.), B., 305.
 manufacture of condensation products of crotonaldehyde, (P.), B., 884.
- I. G. Farbenind. A.-G., and Krzikalla, *H.*, azo-dyes, (P.), B., 212.
 developing salts [in dyeing], (P.), B., 277.

- I. G. Farbenind. A.-G., Krzikalla, H., and Schneevoigt, A., fixing pigments and dyes, (P.), B., 197.
- I. G. Farbenind. A.-G., and Kunz, M., preparation of vat dyes of the anthracene series containing nitrogen, (P.), B., 404.
- I. G. Farbenind. A.-G., and Langer, H., producing tuberculosis protective and curative material, (P.), B., 268.
- I. G. Farbenind. A.-G., Laska, L., and Zitscher, A., azo-dyes, (P.), B., 213, 275.
- I. G. Farbenind. A.-G., and Löchner, L., mercerising vegetable fibres, (P.), B., 361.
- I. G. Farbenind. A.-G., Löchner, L., and Korte, H., removing the dressing from fibrous vegetable material, (P.), B., 579.
- I. G. Farbenind. A.-G., and Lohöfer, W., photographic film, (P.), B., 622*.
- I. G. Farbenind. A.-G., Lueg, P., Drucker, J., and Thienemann, H., production of active carbon, (P.), B., 807*.
- I. G. Farbenind. A.-G., Lüttringhaus, A., Neresheimer, H., and Wolff, H., manufacture of condensation products and dyes of the benzanthrone series [isodibenzanthrones], (P.), B., 773.
- I. G. Farbenind. A.-G., Lüttringhaus, A., and Wolff, H., preparation of dyes of anthracene series, (P.), B., 386.
- I. G. Farbenind. A.-G., Lüttringhaus, A., Wolff, H., and Emmer, H. J., preparation of vat dyes, (P.), B., 386.
- I. G. Farbenind. A.-G., Lummerzheim, H., Huber, J., and Eckert, P., production of fine, soft viscose fibres with good physical properties, (P.), B., 361.
- I. G. Farbenind. A.-G., and Luther, M., oxidation of paraffin hydrocarbons, (P.), B., 291.
- I. G. Farbenind. A.-G., May, R., and Mischen, W., insecticidal plant spray, (P.), B., 344.
- I. G. Farbenind. A.-G., Mayer, F., and Schirmacher, K., separation of amine mixtures of partly hydrogenated aromatic compounds, (P.), B., 286.
- I. G. Farbenind. A.-G., and Metzger, R., dyeing and printing cellulose esters, (P.), B., 9.
- I. G. Farbenind. A.-G., Metzger, R., and Schuster, C., dyeing and printing cellulose esters, (P.), B., 277.
- I. G. Farbenind. A.-G., Meyer, K. H., and Hopff, H., anthraquinone vat dyes, (P.), B., 211.
- I. G. Farbenind. A.-G., Meyer, K. H., Krzikalla, H., and Schneevoigt, A., printing processes [for textile materials], (P.), B., 216.
- I. G. Farbenind. A.-G., and Mieg, W., preparation of acid wool dyes of the anthraquinone series, (P.), B., 405.
- I. G. Farbenind. A.-G., and Miller, A., photographic copying by the reflection method, (P.), B., 893*.
- I. G. Farbenind. A.-G., Müller, C., and Huberich, K., preparation of iron carbonyl, (P.), B., 388.
- I. G. Farbenind. A.-G., Müller, C., and Schubardt, W., treatment of bituminous sulphide ores containing copper and zinc, (P.), B., 658.
- I. G. Farbenind. A.-G., Müller, E., and Schaeffer, A., dyeing cellulose acetates, (P.), B., 964.
- I. G. Farbenind. A.-G., and Müller, W., method and agent for drying gases, (P.), B., 832*.
- I. G. Farbenind. A.-G., Müller, W. J., and Nitzschke, O., apparatus for treating gases and vapours with the silent electric discharge, (P.), B., 849.
- I. G. Farbenind. A.-G., and Müller-Cunradi, M., preparation of esters, (P.), B., 348.
- I. G. Farbenind. A.-G., Müller-Cunradi, M., preparation of chloro-derivatives of ethane, (P.), B., 428.
- I. G. Farbenind. A.-G., Müller-Cunradi, M., Luther, M., and Pieroh, K., reduction of organic compounds, (P.), B., 903.
- I. G. Farbenind. A.-G., Müller-Cunradi, M., and Vierling, K., germicidal agent, (P.), B., 350.
- I. G. Farbenind. A.-G., Münch, E., and Meyer, K. H., calico printing process, (P.), B., 407.
- I. G. Farbenind. A.-G., and Münch, S., production of highly active carbon, (P.), B., 769.
- I. G. Farbenind. A.-G., and Nawiasky, P., manufacture of anthraquinone derivatives, (P.), B., 903.
- I. G. Farbenind. A.-G., Nawiasky, P., Zahn, K., and Saurwein, K., manufacture of vat dyes, (P.), B., 773*.
- I. G. Farbenind. A.-G., and Neresheimer, H., benzanthrone derivatives, (P.), B., 275.
- I. G. Farbenind. A.-G., and Neresheimer, H., isodibenzanthrone, B., 275.
- I. G. Farbenind. A.-G., preparation of condensation products of the benzanthrone series, (P.), B., 550.
- I. G. Farbenind. A.-G., and Nicodemus, O., production of highly active contact material, (P.), B., 467.
- I. G. Farbenind. A.-G., Ott, K., and Schaffganz, K., manufacture of o-aminocinnamic acid, (P.), B., 974.
- I. G. Farbenind. A.-G., Petzold, G., and Rittner, H., production of combined shades of azo- and vat dyes on vegetable fibre, (P.), B., 874*.
- I. G. Farbenind. A.-G., and Pfützer, G., [plant] stimulant and fertiliser, (P.), B., 919.
- I. G. Farbenind. A.-G., Pfützer, G., and Flieg, O., retting of flax and similar fibrous plants, (P.), B., 184.
- I. G. Farbenind. A.-G., and Pistor, G., production of phosphorus pentoxide, (P.), B., 331*.
- I. G. Farbenind. A.-G., and Platsch, M., utilising and producing cement from the residue obtained in the reduction of molten crude phosphates, (P.), B., 367.
- I. G. Farbenind. A.-G., Polikier, H., and Hähle, H., triarylmethane dyes from tetra-alkyldiaminobenzophenone and arylated ethylenediamines; triarylmethane dyes from tetra-alkyldiaminobenzophenones and di-a-naphthylethylenediamine, (P.), B., 550.
- I. G. Farbenind. A.-G., Pungs, W., and Luther, M., preparation of emulsifying agents, etc., (P.), B., 548.
- I. G. Farbenind. A.-G., and Rast, K., obtaining liquids in a solid state, (P.), B., 173*.
- I. G. Farbenind. A.-G., solidification of liquid substances, (P.), B., 863.
- I. G. Farbenind. A.-G., Reissmann, E., and Richter, A., extraction of bituminous materials, (P.), B., 403.
- I. G. Farbenind. A.-G., and Reitstötter, J., production of diaphragms constructed of hardened gelatin or glue [for electro-osmotic use], (P.), B., 498.
- I. G. Farbenind. A.-G., and Riedel A.-G., J. D., manufacture of anthraquinone derivatives, (P.), B., 597.
- I. G. Farbenind. A.-G., and Rosenthal, L., preparation of varnishes, (P.), B., 661.
- I. G. Farbenind. A.-G., and Sander, F., manufacture of fluorides, (P.), B., 842*.
- I. G. Farbenind. A.-G., and Schaffganz, K., manufacture of coumarin from o-coumaric acid, (P.), B., 974.
- I. G. Farbenind. A.-G., and Schatz, H., production of cobaltous acetate, (P.), B., 749*.
- I. G. Farbenind. A.-G., Schirmacher, K., and Langbein, W., preparation of halogenated naphthasultones, (P.), B., 275.
- I. G. Farbenind. A.-G., Schirmacher, K., and Wolfram, A., preparation of compounds of the indigo group, (P.), B., 648.
- I. G. Farbenind. A.-G., Schladebach, H., and Hähle, H., preparation of dyestuff inks, (P.), B., 183.
- I. G. Farbenind. A.-G., and Schmidlin, R., brown dyes for wool and leather, (P.), B., 213.
- I. G. Farbenind. A.-G., Schmidt, R. E., and Berliner, R., manufacture of anthraquinone derivatives, (P.), B., 838.
- I. G. Farbenind. A.-G., Schmidt, O., and Feller, A., preparation of primary aromatic amines, (P.), B., 579.
- I. G. Farbenind. A.-G., and Schneevoigt, A., printing and fixing basic dyes on acetate silk, (P.), B., 905.
- I. G. Farbenind. A.-G., and Sehnitzspahn, K., diazo-preparations, (P.), B., 359.
- I. G. Farbenind. A.-G., stable diazo-preparations, (P.), B., 647.
- I. G. Farbenind. A.-G., and Schranz, K., preparation of zinc compounds of aromatic biguanides, (P.), B., 349.
- I. G. Farbenind. A.-G., and Siedler, P., manufacture of carbon disulphide, (P.), B., 189*.
- I. G. Farbenind. A.-G., Siedler, P., and Moschel, W., dehydration of fused mixtures of alkaline-earth chlorides and magnesium chloride, (P.), B., 218.
- I. G. Farbenind. A.-G., Siedler, P., and Schulte, E., continuous production of pure carbon disulphide, sulphur, and highly concentrated hydrogen sulphide from crude carbon disulphide, (P.), B., 702.
- I. G. Farbenind. A.-G., and Simmat, W., continuous absorption by porous material of constituents of gas mixtures, (P.), B., 465.
- I. G. Farbenind. A.-G., Spengler, O., Virck, P., and Weidenhagen, R., dyeing or printing acetate silk, (P.), B., 249.
- I. G. Farbenind. A.-G., and Staib, K., conversion of oxides into anhydrous fused chlorides, (P.), B., 749.

- I. G. Farbenind. A.-G., Steindorff, A., and Meyer, Heinrich, means for combating plant pests, (P.), B., 233.
 plant sprays, (P.), B., 311.
- I. G. Farbenind. A.-G., Streitwolf, K., and Fehrlé, A., preparation of water-soluble derivatives by means of salt-forming groups of substituted arylarsinic and arylstibinic acids and their corresponding oxides, (P.), B., 286.
- I. G. Farbenind. A.-G., Thiess, K., and Meissner, T., preparation of acid triarylmethane dyes, (P.), B., 579.
- I. G. Farbenind. A.-G., and Wagner, H., manufacture of azo-dyestuffs derived from 2-naphthol-3-carboxylarylamides, (P.), B., 469.
- I. G. Farbenind. A.-G., and Webel, F., preparation of succinic anhydride, (P.), B., 924.
- I. G. Farbenind. A.-G., and Weber, O. H., protection of magnesium and its alloys from atmospheric oxidation, (P.), B., 491.
- I. G. Farbenind. A.-G., and Wegner, C., purification of benzines, etc., produced by cracking, (P.), B., 245.
- I. G. Farbenind. A.-G., and Weinand, C., preparation of leuco-hydroxyanthraquinones, (P.), B., 470.
- I. G. Farbenind. A.-G., and Wenzl, H., production of high-grade half-stuff, (P.), B., 164.
- I. G. Farbenind. A.-G., Wietzel, R., and Köhler, O., manufacture of higher aliphatic acids, (P.), B., 924.
- I. G. Farbenind. A.-G., and Winkler, F., water-gas [from powdered fuel], (P.), B., 548, 770.
- I. G. Farbenind. A.-G., and Wolfram, A., preparation of condensation products of the anthraquinone series [isodibenzanthrones], (P.), B., 404.
- I. G. Farbenind. A.-G., Wukte, J., and Hagge, W., manufacture of sulphur dyestuffs, (P.), B., 136.
- I. G. Farbenind. A.-G., and Zitscher, A., preparation useful for the production of dyestuffs, (P.), B., 69*.
- I. G. Farbenind. A.-G., Zitscher, A., and Muris, F., printing fast shades [on textile materials], (P.), B., 216.
- I. G. Farbenind. A.-G., Zitscher, A., and Schmitt, R., manufacture of diacetylarylenediamino, (P.), B., 551*.
- Ibbs, T. L., and Underwood, L., comparison of the behaviour in thermal diffusion of nitrogen and carbon monoxide and of nitrous oxide and carbon dioxide, A., 616.
- Ibuki, T., syncholia and syncholia. II. Elimination of substances containing iodine by bile and urine, A., 990.
- Ica A.-G., reversal process for direct positives, (P.), B., 462.
- Ichihara, K. See Kotake, Y., and Mitsuha, K.
- Idris, W. H. W., coloured materials for use in the manufacture of hard tennis courts and the like, (P.), B., 604.
- Iimori, S., formation of aquopentacyano-iron salts in aqueous solutions of hexacyano-iron complexes and the successive dissociation of the latter, A., 1157.
- Iimori, S., and Yoshimura, J., lepidolite from Nagatori, Chikuzen Province, and the lithium content of Japanese mica, A., 129.
- radioactivity of rubidium extracted from lepidolite and zinnwaldite of Japan, A., 86.
- Ikebata, T., composition of the aqueous humour, A., 692.
- Ikebata, T. See also Wohlgemuth, J.
- Ikeda, K., Isobe, H., Okazawa, T., and Zaidan Hojin Rikagaku Kenkyujo, manufacture of an adsorbent, (P.), B., 512*.
- Ikeda, T., catalytic action of reduced copper on isoborneol, A., 1196.
- synthesis of camphor, A., 1196.
- Ikeda, T., and Fujita, Y., oxidation of isobornyl acetate with ozone, A., 1196.
- Iki, S., and Ogura, M., preparation of benzene by polymerisation of acetylene, B., 739.
- Ikoma, S., influence of certain bile acids on fat metabolism, A., 791.
- Ilijn, E. A. See Smorodincev, J. A.
- Ilijn, L. F., action of arsenic acid on gallic acid, A., 151.
- Ilijn, N. W. See Salkind, J. S.
- Ilijinski, M. A., Balandin, A. A., Gaverdovskaja, M. F., and Turova-Pollak, B., adsorption of solids by fibres from aqueous suspensions, A., 106.
- Illeemann, R., waterproof composition [cement], (P.), B., 166.
- Illies, H., "Turner" process of low-temperature carbonisation, B., 576.
- Illievitz, A. B., unknown substance in urine from a case of diabetes insipidus, A., 373.
- Illig, K., preparation and application of beryllium, B., 880.
- Illingworth, S. R., and Illingworth Carbonization Co., Ltd., apparatus for the manufacture of carbonised fuel, (P.), B., 868*.
- Illingworth, S. R. See also Illingworth Carbonization Co., Ltd. Illingworth Carbonization Co., Ltd., and Illingworth, S. R., apparatus for washing and treating coal, (P.), B., 865.
- Illingworth Carbonization Co., Ltd. See also Illingworth, S. R.
- Illinois Anthracite Corporation, Lomax, C. S., and Grant, W. M., solid smokeless fuel, (P.), B., 866.
- Imai, S. See Urano, S.
- Imhäuser, K., plasmalogen. II. Occurrence of plasmalogen in animals, A., 894.
- Imhäuser, K. See also Feulgen, R.
- Imhoff, K., apparatus for sewage treatment by activated sludge in combination with sludge digestion, (P.), B., 926.
- Imhoff, M. See Berg, O.
- Immel, A. See Berl, E.
- Immendörfer, E. See Bergmann, M.
- Imperial, G. A., and West, A. P., salts of linolenic hexabromide from lumbang, B., 236.
- Imperial Institute, waste kauri wood as a source of paper pulp and resin, B., 247.
- Alpina nutans* for paper-making, B., 599.
- essential oils, B., 617.
- chenopodium oil from Mauritius, B., 618.
- peat and peat wax from Chatham Islands, B., 835.
- tanning materials of the British Empire, B., 854.
- Imperial Oil, Ltd. See Leaver, C.
- Imre, L., purification of cerium, A., 844.
- actinium, A., 1021.
- Inada, J., chemical composition of the liver in experimental spirochaetosis, A., 789.
- India Rubber, Gutta Percha, & Telegraph Works Co., Ltd., and Walkley, B., paper-making machines, (P.), B., 329.
- Industrial Associates Inc., spray drying, (P.), B., 801, 896.
- Industrial Chemical Co. See Wickenden, L.
- Industrial Dryer Corporation, method and apparatus for drying or conditioning products composed of different components having different moisture contents, (P.), B., 768*.
- Industrial Spray-Drying Corporation, and Holliday, R. L., manufacture of soap powder, (P.), B., 661*.
- Industrial Spray-Drying Corporation. See also Holliday, R. L.
- Industrial Technics Corporation. See Arsem, W. C.
- Industrial Waste Products Corporation. See Dickerson, W. H.
- Infield, E. G. See Hunt, C. J.
- Ingersoll, C. D., oxidation of dextrose at the ordinary temperature by oxides of manganese, A., 523.
- hydrolysis of sucrose by invertase in very concentrated solutions, A., 901.
- Ingersoll, L. R. See Hanawalt, J. D.
- Ingham, B. H., mechanism of reactions induced by hydrogen chloride between aromatic aldehydes and aldehydecyano-hydrins in solution, A., 459.
- nitration of β -naphthyltrimethylammonium nitrate, A., 963.
- Ingle, H. W. See Hartford-Empire Co.
- Ingleson, H., thermal dissociation of carbonyl chloride, A., 1035.
- Inglis, F. G. See Richardsons, Westgarth, & Co., Ltd.
- Ingold, C. K., and Ingold, (Mrs.) E. H., action of nitric acid on S-methylthioguaiacol, A., 146.
- Ingold, C. K., Ingold, (Mrs.) E. H., and Shaw, F. R., alternating effect in carbon chains. XIV. Directive action of groups of the form $-CH_2SO_2R$ in aromatic substitution, A., 550.
- Ingold, C. K., and Marshall, P. G., structure of the benzene nucleus. V. *meso*-Derivatives of anthracene, A., 141.
- Ingold, C. K., and Seeley, E. A., chemistry of polycyclic structures in relation to their homocyclic unsaturated isomerides. VIII. Differing effects of the *gem*-dimethyl and *spirocyclohexane* groupings on the direction of blocking of an intra-annular tautomeric system by substitution, A., 877.
- Ingold, C. K., and Smith, Ernest Walter, alternating effect in carbon chains. XX. Conditions underlying vicinal substitution in *o*-substituted benzenes containing *op*-orienting groups, A., 870.
- Ingold, C. K., Smith, Ernest Walter, and Vass, C. C. N., alternating effect in carbon chains. XIX. Mechanism of certain aromatic migrations, A., 762.
- Ingold, C. K., and Wilson, I. S., alternating effect in carbon chains. XIII. Nitration of some γ -phenylpropylamine derivatives, A., 553.
- Ingold, C. K. See also Baker, J. W., Cooper, K. E., Goss, F. R., and Hanhart, W.
- Ingold, (Mrs.) E. H., specific heats of hydrocyanic acid, A., 11.
- Ingold, (Mrs.) E. H. See also Ingold, C. K.

- Ingolfssrud, *L. J.*, and Soule, *W. H.*, separating magnetic from non-magnetic material, (P.), B., 633.
- Ingvaldsen, *T.*, and Cameron, *A. T.*, iodine compounds of the thyroid, A., 486.
- Initchoff, *G.*, determination of the freshness of milk, B., 793.
- Inkster, *J. J.* See Allpress, *C. F.*
- Inman, *G. E.* See British Thomson-Houston Co., Ltd.
- Innes, *W. R.*, shock-resistant glass, (P.), B., 253.
- Inoue, *H.*, catalytic action of Japanese acid earth. IV. Action on cyclohexanol and its derivatives, A., 51.
- Inskeep, *W. D.* See Parsons, *E. B.*
- Insley, *H.*, surface deposits formed in glass furnace regenerators, B., 581.
microstructure of earthenware, B., 629.
- Institution of Gas Engineers, Gas Investigation Committee, carbonisation. II. Size of coal, admixture, inorganic compounds, B., 592.
products of combustion from typical gas appliances. II. Gas fires, B., 593.
- International Combustion, Ltd., and Rosencrants, *F. H.*, fuel burners, (P.), B., 246.
drying coal and other fuel, or other granular or powdered material, (P.), B., 514.
- International Combustion Engineering Corporation, pulverising mills, (P.), B., 176.
- International Combustion Engineering Corporation, and Runge, *W.*, carbonising or cracking fuels, (P.), B., 99.
carbonising or gasifying fuel, (P.), B., 162.
- International Combustion Engineering Corporation, Runge, *W.*, and Packard, *E. A.*, heat treatment or carbonisation of coal, (P.), B., 34.
treatment of coal, (P.), B., 547, 694.
- International Combustion Engineering Corporation. See also McEwen, *S.*
- International Copperclad Co., and Robinson, *T.*, [cathode] for electrodeposition, (P.), B., 47.
process and apparatus for electrodeposition, (P.), B., 81.
apparatus [anodes] for electrodeposition, (P.), B., 144.
- International General Electric Co., Inc., and Allgemeine Elektrizitäts-Gesellschaft, means for making gas-tight joints between metal and glass or quartz, (P.), B., 80.
rotary hearth furnaces, (P.), B., 287.
[heating resistances for] electric furnaces, (P.), B., 391.
electric arc welding or coating with material, (P.), B., 416.
method of electrically testing [the dielectric strength of] insulating layers [on wires], (P.), B., 727.
[device for] electrode operation in electric furnaces, (P.), B., 727.
preventing corrosion in condensers, (P.), B., 767.
- International Nickel Co., [desulphurising] treatment of nickel-containing mattes, (P.), B., 560.
- International Nickel Co., and Mudge, *W. A.*, manufacture of alloys of copper, nickel, and aluminium, (P.), B., 302.
- International Nickel Co., Pilling, *N. B.*, and Schoener, *J. G.*, welding [of nickel], (P.), B., 784.
- International Nickel Co., Suhl, *R. L.*, Sands, *J. W.*, and Fraser, *O. B. J.*, electrolytic process [for obtaining pure nickel], (P.), B., 819.
- International Nickel Co. See also Lellep, *O.*, Merica, *P. D.*, and Mudge, *W. A.*
- International Patents Development Co. See Buel, *H.*, and Newkirk, *W. B.*
- International Precipitation Co. See Schmidt, *W. A.*
- International Society of Leather Trades' Chemists, official methods for analysis of vegetable tanned leather, B., 283.
- International Sugar and Alcohol Co., Ltd. See Färber, *E.*
- International Yeast Co., Ltd., and Buhrig, *W. H. F.*, manufacture of yeast, (P.), B., 857.
- International Yeast Co., Ltd. See also Harrison, *A. P.*
- Internationale Bergin-Comp. voor Olie- en Kolen-Chemie, and Debo, *A.*, cracking coal, oils, and other hydrocarbons, (P.), B., 273.
- Ionescu, *M. V.*, truxenequinone; genetic relationships between indanedione, di-indone, and truxenequinone, A., 669.
substitution in the benzene nucleus, A., 756.
action of substances containing an active methylene group on quinones, A., 1079.
supposed dimeric crotonaldehyde, A., 1172.
- Ionescu, *M. V.*, and Georgescu, *V. N.*, action of substances containing an active methylene group on hexamethylenetetramine. I. and II., A., 651, 880.
- Ionescu-Matin, *A.*, mercurimetry, A., 687.
- Ionides, *P. D.* See Ransomes & Rapier, Ltd.
- Ipatiev, *V.*, *jun.* See Ipatiev, *V. N.*
- Ipatiev, *V. N.*, and Andreevski, *J.*, precipitation of iridium from its solutions by hydrogen under pressure, A., 844.
- Ipatiev, *V. N.*, and Dolgov, *B. N.*, hydrogenation of triphenylcarbinol and phenylfluorenylcarbinol under pressure, A., 457*.
hydrogenation under pressure of tetraphenylmethane and *p*-hydroxytetraphenylmethane, A., 866.
- Ipatiev, *V. N.*, and Ipatiev, *V. jun.*, influence of the concentration of hydrogen ions on the displacement of copper from its solutions at high pressures and temperatures, A., 1042.
- Ipatiev, *V. N.*, and Kisselev, *A.*, precipitation of metals and their oxides from salt solutions by hydrogen at high temperatures and pressures, and synthesis of minerals. II. Precipitation of oxides from salts of chromium, manganese, and iron, A., 739.
- Ipatiev, *V. N.*, and Klinkoia, *N.*, precipitation of metals and their oxides from salt solutions by hydrogen at high temperatures and pressures, and synthesis of minerals. I. Influence of other metals in the precipitation of copper, A., 739.
- Ipatiev, *V. N.*, and Kondyrev, *I. N.*, precipitation of metals and their oxides from salt solutions by hydrogen at high temperatures and pressures, and synthesis of minerals. III. Precipitation of metals of the iron group from solutions of their cyanides and salts with organic acids, A., 739.
- Ipatiev, *V. N.*, and Mouromtsev, *B.*, displacement of metals or their oxides from solutions by hydrogen under pressure; separation of crystalline hydroxides of aluminium and chromium from solutions of their salts at high temperatures and under high pressures, A., 1043.
formation of crystalline silicates in an aqueous medium under pressures and at high temperatures, A., 1044.
- Ipatiev, *V. N.*, and Nikolaiev, *V. T.*, allotropic modifications of phosphorus, A., 121.
precipitation of metals and their oxides from salt solutions by hydrogen at high temperatures and pressures, and synthesis of minerals. IV. Precipitation of phosphorus, arsenic, and antimony from their salts at high temperatures and pressures, A., 739.
action of hydrogen on tin salts at high temperatures and pressures, A., 950.
- Ipatiev, *V. N.*, and Orlov, *N.*, hydrogenation of xanthone and xanthen. V., A., 251, 346*, 464*.
hydrogenation of distyryl ketone and di- β -phenylethyl ketone, A., 461, 880.
pyrogenic dissociation of certain aromatic compounds under pressure of hydrogen and by the combined action of catalysts, A., 1060.
- Ipatiev, *V. N.*, Orlov, *N.*, and Petrov, *A.*, action of methyl alcohol on phenol at high temperatures and pressures; formation of xanthen, A., 239, 762.
reaction between phenol and *n*-propyl alcohol at high temperatures and pressures, A., 538.
- Ipatiev, *V. N.*, and Petrov, *A.*, catalytic condensation of acetone at high temperatures and pressures. I. and II., A., 449, 1172.
pyrogenic decomposition of ketones under high pressures, A., 1076.
- Ipatiev, *V. N.*, and Razubaiev, *G. A.*, catalytic hydrogenation of aromatic acids and their salts, A., 147.
condensation of lactic acid and a dibasic acid under the influence of the combined action of catalysts at high pressures and temperatures, A., 959*.
hydrogenation of salts of aromatic acids under pressure. II., A., 970*.
condensation of α -hydroxy- and keto-acids under the influence of the combined action of catalysts, A., 1053.
reduction of polybasic α -hydroxy-acids under the influence of the combined action of catalysts, A., 1054.
- Ipsen, *C. L.* See British Thomson-Houston Co., Ltd.
- Irata, *H.*, and Komatsubara, *H.*, arrangement of micro-crystals in silver deposited by electrolysis, A., 95.
- Ireland, *W. S.*, and Lipman Refrigeration Co., [tin-silver] alloy, (P.), B., 582.
- Ireton, *H. J. C.* See Allin, (*Miss*) *E. J.*, and McLennan, *J. C.*
- Irinzi, *A.*, production of benzene by reaction between phenolic vapours and a reducing gas, (P.), B., 696.
- Irmser, *A.* See Schleifenbaum Gebrüder & Co., G.m.b.H.
- Irons, *E. J.*, variation of the velocity of sound in gases with temperatures, A., 718.

- Ironside, E. A., apparatus for the extraction and recovery of volatile liquids, (P.), B., 512*.
- Irvine, F. M., and Robinson, R., synthesis of pyrylium salts of anthocyanidin type. XIII. Some monohydroxyflavylium salts, A., 1084.
- Irvine, F. M., and Smith, J. C., bromination of quinol mono-methyl ether (*p*-methoxyphenol), A., 240.
- Irving, F. See Dickinson, R.
- Irving, J. T., degradation of dextrose by blood corpuscles of the rabbit. II., A., 68.
dextrose metabolism of kidney tissue *in vitro*. I., A., 897.
- Irving, L., regulation of the hydrogen-ion concentration and its relation to metabolism and respiration in the starfish, A., 71.
- Irwin, J., and Monk, R. H., production of titanium pigments, (P.), B., 419.
- Irwin, J. H. See also Monk, R. H.
- Irwin, J. H. See Wokes, F.
- Irwin, M., penetration of basic dye into *Nitella* and *Valonia* in the presence of certain acids, buffer mixtures, and salts, A., 72.
effects of salts on the penetration of brilliant-cresyl-blue into *Nitella*, A., 277.
nature of the dye penetrating the vacuole of *Valonia* from solutions of methylene-blue, A., 907.
- Isaachsen, I., and Aktieselskapet Krystal, separation of two or more substances from a solution, (P.), B., 898*.
- Isajev, V. I., raffinase, A., 591, 631.
yeast maltase, B., 89.
- Isajevic, V., photo-gelatin, B., 825.
- Isawa, Z. See Kimura, S.
- Isbekov, W., electrical transport in solutions in fused aluminium bromide, A., 114.
- Ischikawa, J., pharmacological action of some compounds related to camphor. I., A., 1220.
- Iscovesco, H., and Adams, A. B., preparation of vitamin-rich products, (P.), B., 377.
- Isgarischev, N. A., and Bogomolova, M. I., structure of organic acids and protein coagulation. I., A., 110.
- Isgarischev, N. A., and Pomeranzeva, A. L., effect of organic acids on the imbibition of gels. II., A., 110.
- Isgarischev, N. A., and Schapiro, F. S., activation of chemical reactions by neutral salts. I. Activation of reaction between marble and acids by neutral salts, A., 945.
- Isgarischev, N. A., and Titov, P., influence of gelatin on the potential and discharge potential of zinc in zinc sulphate solution, A., 832.
- Ishigaki, T., change in hardness and density of iron and steel on cold-working, B., 277.
effect of grain-size on the hardness of pure iron, A., 716.
density of cementite, A., 718.
- Ishikawa, F., chemical kinetics of the reaction between tetrathionate and cyanide, A., 1147.
- Ishikawa, S., condensation of nitriles with thioamides. III. Nitriles with thioanilides and thionaphthalides, A., 758.
- Ishikawa, Y. See Geiling, E. M. K., Oettingen, W. F. von, and Supniewski, J. V.
- Ishimaru, S., preservation of standard solution of oxalic acid and reading of the burette, A., 743.
- Ishiuchi, N. See Tamiya, H.
- Isobe, H., state of moisture adsorbed on acid earth, A., 1135.
- Isobe, H. See also Ikeda, K.
- Isom, E. W., Bell, J. E., and Sinclair Refining Co., condensation of hydrocarbons, (P.), B., 358.
apparatus for condensing vapours, (P.), B., 671.
- Isom, E. W. See also Bell, J. E.
- Israël, H., magneto-spectroscopic investigations on nickel wires with short Hertzian waves, A., 99.
- Israelsohn, M. See Glassmann, B.
- Issekutz, B. von, action of insulin. II. Antagonism between insulin and adrenaline, A., 594.
- Issekutz, B. von, and Both, J. von, determination of 1—15 mg. of dextrose, A., 600.
- Istelli, H., treatment of bagasse, (P.), B., 952.
- Itallie, L. van, and Steenhauer, A. J., vanillin and piperonal as reagents for alkaloids, A., 983.
- Itano, A., cellulose [bacteria]. I., B., 151.
soil micro-organisms and activators, B., 151*.
- Itano, A., and Drakawa, S., carbon-nitrogen ratio and microbiological investigation of the soil in rice fields. I. The carbon-nitrogen ratio, B., 611.
- Itano, A., Drakawa, S., and Hosoda, K., Biilmann's quinhydrone electrode. III. The electrode and agar bridge, B., 611.
- Itano, A., and Hosoda, K., Biilmann's quinhydrone electrode. I. Table for p_H values corresponding to electromotive forces determined in quinhydrone electrode measurements. II., B., 151.
- Itier, J. A. H., rendering cement receptacles, pipes, walls, blocks, and the like impervious to chemical reagents, (P.), B., 190.
- Ivančević, I., experimental phosphorus poisoning with particular reference to blood-sugar, A., 590.
- Ivanov, D., constitution of Grignard's organo-magnesium derivatives, A., 961.
- Ivanov, N. N., constancy of the chemical composition of plants, A., 383.
- Ivanov, N. N., and Smirnova, M. I., formation of carbamide by bacteria. II., A., 379.
- Ivanov, N. N., and Toschevikova, A., two kinds of carbamide formation in mushrooms, A., 383.
- Ivanov, S. L., influence of Turkestan climate on the chemical processes of plants, A., 906.
- Ivanov, V. N., determination of platinum, palladium, and rhodium, A., 1162.
- Ivanpah Lime & Chemical Co. See Wood, B. G.
- Iveković, H., acceleration of alcoholic yeast fermentation by animal charcoal, A., 592.
- Ives, H. E., photo-electric properties of thin films of alkali metal. II. Phenomena at high temperatures, A., 84.
- Ives, H. E., and Stilwell, G. R., photo-electric emission as a function of composition in sodium-potassium alloys, A., 287.
- Ivy, S. C. See Koppányi, T.
- Iwamoto, K., condensation of phenolic aldehydes and their ethers with methyl ethyl ketone, A., 566.
- Iwasaki, K. See Rona, P.
- Iwase, E., electrical conductivity of salt solutions containing agar-agar, A., 521, 1144.
synthesis of red gold sols by means of aqueous extracts from fresh leaves, A., 932.
- Iwasé, K., occlusion of gases by metals and alloys in liquid and solid states, A., 15.
equilibrium between iron, carbon, and oxygen; reduction of iron ores, cementation, and gas occlusion of iron and steel, B., 45.
- Iwasé, K. See also Honda, K.
- Iyer, M. P. V. See Mukherjee, J. N.
- Iyer, S. N., and Simonsen, J. L., catalytic hydrogenation of carone, A., 464*.
- Izume, S., and Lewis, H. B., influence of hydrazine and its derivatives on metabolism. I. Effect of substitution in the hydrazine molecule on the hypoglycaemic action of hydrazine, A., 73.
influence of hydrazine and its derivatives on metabolism. II. Non-protein nitrogen of blood and metabolism of glycine in hydrazine intoxication. III. Mechanism of hydrazine hypoglycaemia, A., 171.

J.

- Jabieczyński, K., and Hermanowicz, E., kinetics of dissolution of aluminium in acids and alkalis, A., 213.
- Jabieczyński, K., Kawenoki, G., and Kawenoki, J., velocity of coagulation of colloids by salts in the presence of a peptiser, A., 413.
- Jablonski, L., and Eggert, W., determination of the activity of bating materials by Lenk's method, B., 854.
- Jacek, W., solubility of solids at low temperatures, A., 198.
- Jachzel, J., process for obtaining pressed asphalt compositions and similar products, (P.), B., 110.
- Jack, D., band spectrum of water vapour, A., 808.
- Jackeroth, K. A. See Baggesgaard-Rasmussen, H.
- Jackson, E. L., and Pasiut, L., addition of ethyl and *tert*-butyl hypochlorites to cinnamic acid, A., 969.
- Jackson, F. See United Yeast Co., Ltd.
- Jackson, H. See British Dyestuffs Corporation, Ltd.
- Jackson, Henry, jun., Sherwood, D. W., and Moore, O. J., peptide nitrogen of blood in arterial hypertension, A., 988.
- Jackson, (Sir) Herbert, colouring agents in glasses and glazes, B., 842.

- Jackson, J. S. See Kewley, J.
- Jackson, L. C., non-magnetic films of iron, nickel, and cobalt, A., 299.
- Jackson, L. E., treatment [cleaning] of hydrocarbon oils, (P.), B., 386.
- Jackson, L. E., and Wassell, H. E., mothproofing of fabrics and furs, B., 870.
- Jackson, R. W., indole derivatives in connexion with a diet deficient in tryptophan, A., 791.
- Jackson, W. See Wolfenden, J. H.
- Jackson, W. J., secondary emission from molybdenum due to bombardment by high-speed positive ions of the alkali metals, A., 1119.
- Jacob, A., plant analysis as a means for determining the content of nutrients in soils, B., 637.
- Jacob, C. R., preparation of calcium acetylsalicylate, (P.), B., 428.
- Jacob, P. See Kuhn, R.
- Jacobi, A., Akt.-Ges., cooling plates, (P.), B., 242.
- Jacobi, J. See Pinkus, A.
- Jacobi, R. See Wieland, Heinrich.
- Jacobi, W. See Myrbäck, K.
- Jacobs, C. B., and Du Pont de Nemours & Co., E. I., method of furnacing in thermo-chemical treatment, (P.), B., 400.
- removal of cyanides from masses, (P.), B., 722.
- erosion-resistant ferrous alloy, (P.), B., 912.
- production of a carbon catalyst, (P.), B., 962.
- Jacobs, C. D., and Electro Metallurgical Co., [ferrous] casting having a chromium alloy surface, (P.), B., 783.
- Jacobs, W. A., and Gustus, E. L., strophanthin. XI. Hydroxyl groups of strophanthin. XII. Oxidation of trianhydrostrophanthidin. XIII. *iso*Strophanthidin and its derivatives. XIV. Isomerisation in the *isostrophanthidin* series, A., 1194.
- Jacobs, W. A., and Hoffmann, A., relationship between structure and action of cardiac glucosides, A., 1109.
- Jacobsen, I. H. H., fungicide, (P.), B., 233*.
- Jacobsen, J., Goffin, J., Goffin, L., and Renson, L., recovery of tin from tin-plated materials, (P.), B., 942.
- Jacobsen, J. P., calibration of flasks, burettes, and pipettes; density determinations with the Westphal balance, A., 533.
- Jacobsohn, K. See Zocher, H.
- Jacobson, D. L. See Sperr, F. W., jun.
- Jacobsson, R., dissolving aluminiferous raw materials by means of sulphuric acid or acid sulphates, (P.), B., 814.
- Jacoby, F. C. See Zocher, H.
- Jacoby, M., intensification of enzymic action by minimal amounts of known substances, A., 378.
- Jacometti, T. J. A. See Nederlandsche-Indische Spiritus Maatschappij.
- Jacquesson, R. See Reboul, G.
- Jadhav, G. V. See Naik, K. G.
- Jäättelä, A. V. See Routala, O.
- Jäger, A. See Fischer, F., and Lehner, A.
- Jaeger, F. M., and Melle, F. A. van, constitution of artificial ultramarines. II. Ultramarine-blue with high silica content and silver, silver-sodium, and silver-selenium ultramarines, B., 915.
- Jaeger, F. M., Melle, F. A. van, and Westenbrink, H. G. K., X-ray investigations on the structure of the artificial ultramarines and the problem concerning their relations to the minerals hauyne, nosean, sodalite, lazurite, and nephelite, A., 715.
- Jaeger, F. M., Terpstra, P., and Westenbrink, H. G. K., crystal structure of gallium, A., 297.
- Jaeger, F. M., and Westenbrink, H. G. K., crystal form of boron nitride; eventual ambiguity in the analysis of powder-spectrograms, A., 297.
- Jaeger, P. See Steinkopf, W.
- Jänecke, E., quaternary system $K_2O-NH_3-P_2O_5-H_2O$ between 0° and 25° ; separation phenomena between 0° and 70° , A., 731.
- Jänecke, E., Eissner, W., and Brill, R., system $NH_4NO_3-(NH_4)_2SO_4-H_2O$, A., 313.
- Järvinen, K. K., determination of phenol and cresol [in lysol], B., 596.
- determination of sulphur in ores, B., 910.
- Jagoda, G., fodder tests with additions of [beet] raw sugar and molasses, also saccharin, B., 668.
- Jagt, B. G. H. van der. See Bergh, Z. van den.
- Jagt, H. A. C. van der, chemical and physical de-liming of sugar solutions and syrups, B., 56.
- Jahn, C. See Schoeller, W. R.
- Jahn, R. See Oesterreichische Bamag-Büttner-Werke A.-G.
- Jahn, V., determination of starch in foodstuffs containing meat, B., 614.
- Jahnke, A. A., electrolytic cell, (P.), B., 392.
- Jahns, F., gasification of raw fuel in a multiple chambered producer, (P.), B., 467.
- Jakes, M. See Vavon, G.
- Jakob, H. See Kohn, H.
- Jakob, J., production of artificial stones, (P.), B., 334*.
- Jakob, M., simple proof of the failure of Dalton's law for real gases, A., 403.
- pressure effect on mixing gases, A., 403.
- Jakober, F. See Kohlsebütter, V.
- Jakova-Merturi, G., production of crystallised perfumes, (P.), B., 460.
- Jakowsky, J. J., treating bituminiferous materials, (P.), B., 67.
- effects of the corona discharge on petroleum, B., 547.
- distillation of bituminiferous material, (P.), B., 770.
- Jalowetz, E., treatment of waters for brewing, (P.), B., 430.
- Jalowetz, E. See also Zaitschek, A.
- James, C., Fogg, H. C., McIntire, B. W., Evans, R. H., and Donovan, J. E., solubilities of rare-earth salts. II, A., 197.
- James, C. See also Cork, J. M., and Zernike, J.
- James, L. H. See Almy, L. H.
- James, S. See Bloor, W. R.
- James, R. G., and Wardlaw, W., co-ordination compounds of quinquivalent molybdenum, A., 1044.
- James, U. S., coal washing jig, (P.), B., 323.
- Jameson, A. P. See Corbet, A. S.
- Jameson, J., and Gaunt, R., grinding mills, (P.), B., 159.
- Jamieson, G. S., and Baughman, W. F., determination of the "break" (and foots) in linseed oil, B., 118.
- composition of cottonseed oil from the Upland type of seed, B., 660.
- Jamin, J. C. See Waterman, H. I.
- Jamotte, P. L. V., antiseptic and disinfectant, (P.), B., 974.
- Jancke, W., X-ray spectrographic observations on cellulose acetate, A., 715.
- Jancke, W. See also Herzog, R. O.
- Janczak, M., mutual transformations of alkyl phosphites, A., 226.
- Jander, G., and Banthien, H., wear on copper preheater tubes in potash plants, and the detection of traces of copper in concentrated alkali chloride solutions, B., 297.
- Jander, G., and Baur, F., determination and separation of the oxidisable constituents of aluminium alloys, B., 527.
- Jander, G., and Brüll, W., amphoteric hydroxides, their aqueous solutions and crystalline salts. IV. Antimonic acid and the alkali antimonates, A., 122.
- separation of antimony from the alkali metals by distillation, and determination of very small quantities of antimony, A., 640.
- Jander, G., and Pfundt, O., determination of zinc by conductivity titration, A., 126.
- volumetric determination of potassium, A., 1046.
- Jander, W., reactions in the solid state at high temperatures. I. Reaction velocities of endothermic decompositions, A., 736.
- reactions in the solid state at high temperatures. II. Reaction velocity of exothermic changes, A., 1037.
- Jane, R. S. See Humphry, R. H.
- Janek, A., preparation of sols by reduction with tobacco liquor, A., 410.
- new capillary phenomenon, A., 930.
- Janek, A., and Jirgensons, B., influence of alcohols on the coagulation of dispersoid solutions, A., 202.
- sensitising and stabilising action of the skin on colloidal solutions, A., 271.
- Jankovsky, W. D. See Golgov, P. J.
- Janek, J. See I. G. Farbenind. A.-G.
- Janney, N. W., and Shapiro, I., rôle of insulin in protein metabolism, A., 282.
- Jannin, L., elastic hysteresis of some alloys [brass, duralumin, and nickel steel], B., 167.
- Janot, M. See Delaby, R.
- Jansen, (Miss) A. F. J. See Keesom, W. H.
- Jansen, B. C. P., and Donath, W. F., isolation of the anti-beriberi vitamin, A., 382.
- Jansen, F. See Rheinboldt, H.
- Jansen, H. J., jun., process and apparatus for cracking hydrocarbons, P., B., 900.

- Jansen, J. P. H., fermentation of sugar for the production of yeast and of alcohol, (P.), B., 568.
- Janssen, H. See Feist, F.
- Jansson, B. See Euler, H. von, and Nilsson, R.
- Jantsch, G., addition and substitution reactions with zirconium chloride, A., 147.
- Jantsch, G., Rüping, H., and Kunze, W., lower valency compounds of the rare-earth elements. I. Samarous chloride, A., 530.
- Jantsch, G. See also I. G. Farbenind. A.-G.
- Janzen, F., and Vobach, W., producing chromophotographs on paper and chromodiapositives, (P.), B., 157*.
- Japhongiouw, R. T. See Böeseken, J.
- Jarisch, A., hydrogen-ion concentration and pharmacological effect, A., 20.
- Jarotzky, N. N., imparting a close texture to metals, (P.), B., 659.
- Jarrell, T. D. See Veitch, F. P.
- Jarvis, C. W., ionisation and resonance potentials in gallium and indium, A., 391.
- resonance and ionisation potentials in mercury vapour, A., 1119.
- Jarvis, C. W. See also Frayne, J. G.
- Jaubert, G. F., origin of the coloration of beeswax; composition of propolis, B., 707.
- origin of the yellow colour of beeswax, B., 754.
- Jauncey, G. E. M., theory of the intensity of scattered X-rays, A., 707.
- Jauncey, G. E. M., and Compton, A. H., coherence of the reflected X-rays from crystals, A., 1013.
- Jauncey, G. E. M., and Coven, A. W., spatial distribution of the intensity of X-rays scattered by copper, A., 999.
- Jauncey, G. E. M., and Hughes, A. L., radiation arising from the formation of helium from hydrogen, A., 1004.
- Jauncey, G. E. M. See also De Foe, O. K., and Hughes, A. L.
- Javillier, M., Allaire, H., and Rousseau, (Mlle.) S., nucleic phosphorus balance and relation to the course of growth, A., 791.
- Jaxon-Deelman, J. See Branch, G. E. K.
- Jayne, D. W., jun. See Rhodes, F. H.
- Jedrzejski, H., ionising powers of radium-B and radium-C, A., 393.
- charge of α -particles emitted per sec. by 1 g. of radium, A., 710.
- Jeep, K. See Biltz, W.
- Jefferson, C., and Griscom-Russell Co., apparatus for petroleum refining, (P.), B., 100*.
- Jefferson, R. E. See Rhead, T. F. E.
- Jefferson Construction & Oil Treating Co. See Coggeshall, G. W.
- Jeffery, F. H., method of measuring variations of electrical resistance for the determination of the thermal equilibrium diagram of an intermetallic system, A., 1030.
- Jeffery, J. A., Montgomery, E. T., and Champion Porcelain Co., ceramic insulating material; ceramic material, (P.), B., 602.
- Jeffrey, G., metal heating furnace [for rendering iron rustless], (P.), B., 606.
- Jeffrey Manufacturing Co. See Liggett, W. K.
- Jeffries, C. D. See Forbes, E. B.
- Jehring, W. See Gutbier, A.
- Jelinek, J. See Jirsa, F.
- Jelley, E. E., production of photographs on paper, parchment, and the like, (P.), B., 174*.
- Jellinek, C. See Fränkel, S.
- Jellinek, K. See I. G. Farbenind. A.-G.
- Jellinghaus, W. See Fischbeck, K.
- Jena, E., process for obtaining decomposition products from materials containing protein, (P.), B., 457.
- Jentić, S., cresol-soap systems. I. Solubility of cresol-soap solutions in water, B., 494.
- cresol-soap systems. II. Gelatinisation tendency of cresol-soap systems, B., 563.
- Jenckes, E. K., [preparation of] pure oxides and salts of tungsten and molybdenum, B., 439.
- Jendrassik, A., and Keményfi, A. G., vitamin-D. I. Activation of cholesterol, A., 1224.
- Jendrassik, L., and Czike, A., capillary action of filter-paper, A., 825.
- Jendrassik, L. See also Lohmann, K.
- Jenge, W. See Schulz, E. H.
- Jenke, M. See Enderlen, E.
- Jenkins, C. H. M., constitution and physical properties of alloys of copper, zinc, and cadmium, B., 817.
- Jenkins, F. A., line spectra of the isotopes of mercury and chlorine, A., 179.
- structure of certain bands in the visible spectrum of boron monoxide, A., 916.
- Jenkins, F. A., Barton, H. A., and Mulliken, R. S., β -bands of nitric oxide, A., 185.
- β -bands of nitric oxide. I. Measurements and quantum analysis, A., 916.
- Jenkins, F. A. See also Barton, H. A.
- Jenkins, H. See Cunningham, A.
- Jenkins, H. G. See Johnson, R. C.
- Jenkins, J. D., Berger, E. F., and Pittsburgh Plate Glass Co., manufacture of a fungicide containing copper, (P.), B., 919.
- Jenkins, R. G. C. See Griffith, I. O.
- Jenkins, S. H., and Sinnatt, F. S., propagation of a zone of combustion in powdered coal. III. Composition of the oxidation product, B., 802.
- Jenkins, S. H. See also Ermen, W. F. A.
- Jenkins, U. S., cracking of [hydrocarbon] oils, (P.), B., 134.
- Jenkinson, T. A. See Hodgson, H. H.
- Jenks, H. N., electrolytic chlorination at Sacramento filtration plant, B., 510.
- Jennings, E. de W. See Wheeler, A. S.
- Jennings, W. H. See Brodie, G. H.
- Jenny, A. See Ruggli, P.
- Jenny, H., cation and anion exchange at the surface of permutite, A., 415.
- Jensch, H. See I. G. Farbenind. A.-G.
- Jensen, A. L. See Billmann, E.
- Jensen, H., [nitro- and amino-acridines], A., 1087.
- Jensen, H., and Friedrich, M., synthesis of 1-nitro- and 3-nitro-acridine and 1-methyl- and 3-methyl-acridine, A., 575.
- Jensen, H., Salsbery, C. E., and Graham, G. G., production of anthrax aggression, (P.), B., 268.
- Jensen, H. L. See Christensen, H. R.
- Jensen, S. T. See Christensen, H. R.
- Jentgen, H., production of artificial fibres from viscose, (P.), B., 675.
- Jentzsch, H., flash-point tester for oils and fuels, (P.), B., 274.
- Jephcott, H., and Bacharach, A. L., test for vitamin-D, A., 79.
- Jeremiassen, F. See Aktieselskapet Krystal.
- Jerke, G. See Galecki, A.
- Jessen, C. C., and Atlas Powder Co., manufacture of artificial silk, (P.), B., 328.
- Jessen, W. See Lemmermann, O.
- Jessen-Hansen, H., density of ammonium chloride solutions, A., 932.
- density and specific optical rotation of solutions of albumin, A., 934.
- Jesser, H., properties of "mickerfett" [the mesenteric fat of the pig], B., 117.
- calcine content of coffee extracts and their physiological action, B., 153.
- Jessop, G. See Adam, N. K.
- Jessup, A. See Lacell, M. N.
- Jessup, A. C., manufacture of magnesium and the alkaline-earth metals such as calcium by the electrolysis of molten chlorides, (P.), B., 880.
- Jessup & Moore Paper Co., electrolytic cell, (P.), B., 530.
- Jessup & Moore Paper Co. See also Plumstead, J. E.
- Jette, E. R., mobility of ions in solution with particular reference to the separation of isotopes, A., 182.
- Jette, E. R. See also Kendall, J.
- Jeuny, H. See Wiegner, G.
- Jewell, L. E., illuminator for use in metallographic microscopy, A., 437.
- Jewell, W. R., laboratory gas-generating apparatus, A., 334.
- Jewell Export Filter Co., and Williamson, J. E., nozzles for filters, (P.), B., 208.
- Jewett, E. E., and Montonna, R. E., mechanism of filtration, B., 239.
- Jez, P., thermionic emission of incandescent platinum in an atmosphere of iodine, A., 805.
- Jezevski, M., electrical anisotropy of crystalline liquids, A., 92, 398*.
- Jeziarski, T. W., new diketone from phenyl *p*-tolyl ketone, A., 247.
- Jilek, A., and Lukas, J., separation of bismuth by rapid electrolysis in acid solution, A., 322.
- Jinkings, A. J. See Bramley, A.

- Jirgensons, B., coagulation of hæmoglobin in presence of alcohols. I. and II., A., 512, 624.
- Jirgensons, B. See also Janek, A.
- Jirotko, B., method and apparatus for melting blocks of hard fats, (P.), B., 118.
- production of margarine and like edible fats, (P.), B., 763.
- production of hard homogeneous combustible material or objects such as picture frames, black-boards, lighting structures, etc. from peat, peat moss, lignite, and similar substances, (P.), B., 867.
- Jirotko, B. See also Sprenger, O., Patentverwertung Jirotko m.b.H.
- Jirsa, F. [with Jelinek, J., and Srbek, J.], higher oxides of silver. II. Ag_2O_2 , A., 120.
- Jirsa, F., and Jelinek, J., higher oxides of silver. III. Oxidation of silver by ozone, A., 120.
- Jirsa, F., and Kornalik, F., oxidation of sodium plumbite to plumbate by alternating current. II., A., 738.
- Jirsa, F., and Schneider, K., silver accumulator, B., 449.
- Jitsuka, D., equilibrium diagram of the copper-zinc system, A., 1141.
- Joachim, H. L., testing bleaching quality of wood pulp, B., 872.
- Job, A., and Cassal, A., reaction of carbon monoxide with magnesium phenyl bromide in presence of chromium chloride, A., 865.
- chromium carbonyl, A., 1044.
- Job, A., and Dubien, M., constitution of magnesium organo-compounds, A., 233.
- Job, A., and Dusollier, G., phosphino-magnesium compounds, A., 785.
- Job, P., cupriammonia ion and its stability, A., 205.
- substitution of ammonia by ethylenediamine in complexes in solution, A., 546.
- Job, W., treatment of zinc ores and other zinciferous materials, (P.), B., 415.
- Jochem, O. See Wedekind, E.
- Jochims, J., spontaneous structure formation and thixotropy in fresh vanadium pentoxide sols, A., 411.
- Jodidi, S. L., products formed by *Bacterium pruni* in milk, A., 794.
- nitrogen compounds of the rice kernel as compared with those of other cereals, A., 800.
- Jönsson, A., intensities of L X-ray spectra, A., 286.
- intensities of soft X-ray lines as a function of the exciting potential, A., 804.
- Jönsson, E., absorption of X-rays in various elements, A., 1118.
- Jörg, H., micro-determination of mol. wt., A., 613.
- introduction of the carbothionyl group by means of aluminium chloride. I. *p*-Hydroxydithiobenzoic esters, A., 875.
- Joffe, J. S., and McLean, H. C., colloidal behaviour of soils and soil fertility. III. Cation replacement and saturation of soil with calcium, B., 308.
- Johannesson, S., [precast concrete blocks for] tunnel linings, (P.), B., 545.
- Johannsen, F., and Krupp, F., Grusonwerk A.-G., treatment of ores and metallurgical products, (P.), B., 256*.
- Johannsen, O., and Gross, O., production of hydrated olefines, (P.), B., 173*.
- Johansson, C. H., and Linde, J. O., lattice-structure and electrical conductivity in the mixed-crystal series gold-copper, palladium-copper, and platinum-copper, A., 400.
- Johlin, J. M., ring method for surface tension measurement, A., 1136.
- John, H., quinoline derivatives. IV. Substituted 2-styrylquinoline-4-carboxylic acids, A., 1200.
- John, H. [with Fischl, V., and Wünsche, E.], quinoline derivatives. VI. 2-Phenylquinoline-4-carboxylic acid, A., 159.
- John, H. [with Kahl, F.], quinoline derivatives. III. 2-Phenylquinoline-4-carboxylic acid, A., 467.
- John, M. See Wessely, F.
- John, (Miss) M. E. See Spencer, J. F.
- Johner, H. See Staudinger, H.
- Johns, G. McD., retort, (P.), B., 385.
- Johns, I. B. See Hixon, R. M.
- Johns-Manville Inc. See Pond, T. C.
- Johnson, A. H., wheat and flour studies. X. Factors influencing the viscosity of flour-water suspensions. I. Effects of temperature, degree of hydration, and method of manipulation, B., 424.
- Johnson, A. H., and Herrington, B. L., factors influencing the loss of iodine from iodised salt, B., 813.
- Johnson, B. M., kiln, (P.), B., 512.
- Johnson, C. H. See Garner, W. E.
- Johnson, C. M., and Crucible Steel Co. of America, alloy steel, (P.), B., 223.
- Johnson, E. H., many-lined spectrum of sodium hydride, A., 185.
- Johnson, E. H., and Winterton, A. H., concentrator, (P.), B., 491.
- Johnson, E. L., kiln, (P.), B., 544.
- Johnson, E. M. See Vallean, W. D.
- Johnson, F. M. G., and Larose, P., diffusion of oxygen through silver, A., 302.
- Johnson, F. M. G. See also Lipsett, S. G.
- Johnson, J. D. A. See Gibson, C. S.
- Johnson, H., and Staub, P., food dye, B., 404.
- Johnson, J. R. See Moureu, C.
- Johnson, J. W. H., critical review of the methods of analysing water, sewage, and effluents, with suggestions for their improvements, B., 318.
- Johnson, M. C., distribution of intensity in a positive-ray spectral line. I. and II., A., 181, 182.
- Doppler effects and intensities of lines in the molecular spectrum of hydrogen positive rays, A., 495.
- Johnson, M. R. See Baly, E. C. C.
- Johnson, O. W., and Ward-Love Pump Corporation, water softener, (P.), B., 622.
- Johnson, R. C., active nitrogen, A., 85.
- structure and origin of the Swan band spectrum of carbon, A., 395.
- Johnson, R. C., and Jenkins, H. G., band spectrum of silicon fluoride, A., 1005.
- Johnson, T. See Hägglund, E.
- Johnson, T. B., bacteria. XI. Development of a systematic analytical method for the comparative study of bacterial cells, A., 175.
- Johnson, T. B., and Coghill, R. D., chemical analysis of the tubercle bacillus, A., 1222.
- Johnson, T. B. See also Eagles, B. A., and Gatewood, E. S.
- Johnson, T. H., intensities of molecular beams, A., 607.
- reflexion of atomic hydrogen from ice crystals, A., 819.
- Johnson, W. See Talbert, G. A.
- Johnson, W. C. See Kraus, C. A.
- Johnson, Matthey & Co., Ltd. See Powell, A. R.
- Johnston, H. L. See Giaugue, W. F.
- Johnston, J. See Dietrich, H. G., Leopold, H. G., Norton, F. J., and Walker, A. C.
- Johnston, J. M., action of ammonium benzoate on the urine, A., 1218.
- Johnston, W. See Caven, R. M.
- Jolibois, P., constitution of organo-magnesium derivatives, A., 233.
- Jolibois, P., and Chassevent, L., apparatus for the thermal analysis of plaster, B., 221.
- Jolibois, P., and Lefebvre, H., reaction of active nitrogen, A., 1156.
- Jolibois, P., Lefebvre, H., and Montagne, P., comparison of the effects of the electric spark and thermal dissociation, A., 19.
- chemical yield in the decomposition of carbon dioxide at low pressure by the condensed spark, A., 322.
- Jolibois, P., and Montagne, P., graphical method for the calculation of the energy yield of homogeneous reactions, A., 310.
- Joliot, study of the electrolytic deposition of the radio-elements, A., 633.
- Joly, J., and Poole, J. H. J., origin of the earth's surface structure, A., 439, 538*, 709.
- Jonas, G. B., and Naaml. Vennoots. Philips' Gloeilampenfabrieken, sealing metal to glass, (P.), B., 449.
- Jones, A. E., gelatin precipitation test for tannins, B., 497.
- Jones, A. J., volumetric assay of iodides, B., 554.
- Jones, A. O., and Green, G. M., mechanism of reaction between aluminium, iodine, ethyl alcohol, and water; preparation of ethyl iodide, A., 538.
- Jones, C. E., Atuesta, M. A., and General Electric Co., corrosion-resisting metal, (P.), B., 194.
- Jones, C. E. See also British Thomson-Houston Co., Ltd.
- Jones, C. H., determination of mineral nitrogen in fertilisers, B., 262.
- Jones, D. B., new factor for converting the percentage of nitrogen in wheat into that of protein, B., 396.

- Jones, D. B., and Csonka, F. A., glutelins. II. Glutelin of rice (*Oryza sativa*), A., 1227.
- Jones, D. B., and Gersdorff, C. E. F., globulins of rice (*Oryza sativa*), A., 1227.
- proteins of sesame seed, *Sesamum indicum*, A., 1227.
- Jones, D. B. See also Csonka, F. A., and Wells, H. G.
- Jones, D. I. See Haworth, W. N.
- Jones, E., drainage and effluents from gas works, B., 290.
- Jones, E. C. See Glasstone, S.
- Jones, E. E. See Hilditch, T. P.
- Jones, E. H. See Farrow, F. D.
- Jones, E. M., Beavers, G. E., Fairlie, A. M., Houser, J. N., and Tennessee Copper & Chemical Corporation, recovery of nitrogen oxides, (P.), B., 107.
- Jones, E. R., system phenol-water, A., 1030.
- Jones, E. R., and Bury, C. R., f. p. of concentrated solutions. I. Experimental methods and the f. p. of potassium chloride solutions, A., 619.
- Jones, E. W. See Babcock & Wilcox, Ltd.
- Jones, F. B., preparation of a standard plantation rubber, B., 51.
- Jones, F. M., and Hepburn, J. S., North American *Sarraceniaceae*, pitcher liquor, A., 1226.
- Jones, F. M. See also Hepburn, J. S.
- Jones, G. G. See Lowry, T. M.
- Jones, G. H. G., action of hydrogen peroxide on farmyard manure in different stages of decomposition, B., 232.
- Jones, G. L. See Gourdjian, W.
- Jones, G. W., and Perrott, G. St. J., oxygen required for the propagation of hydrogen, carbon monoxide, and methane flames, A., 1036.
- Jones, G. W. See also Coward, H. F.
- Jones, H., and Whiddington, R., energy losses of electrons, A., 492.
- Jones, H. A., Langmuir, I., and Mackay, G. M., rates of evaporation and vapour pressures of tungsten, molybdenum, platinum, nickel, iron, copper, and silver, A., 927.
- Jones, H. W., and Cantarow, A., urea concentration test, A., 71.
- Jones, J. A., influence of molybdenum on medium-carbon steels containing nickel and chromium, B., 413.
- Jones, J. C. See Edwards, C. A.
- Jones, J. H., effect of administration of cod-liver oil to thyro-parathyroidectomised dogs, A., 79.
- relation of inorganic dietary constituents to production of ophthalmia in rats, A., 1223.
- Jones, J. M., and McLachlan, T., determination of moisture by the volatile solvent method, B., 591.
- Jones, J. O. See Robinson, G. W.
- Jones, J. T., [agents for] emulsification, (P.), B., 254.
- Jones, L. A., contrast of photographic printing paper, B., 317.
- contrast of photographic printing paper; correlation between sensitometric constants of positive materials and the characteristics of the optimal positives and negatives, B., 621.
- Jones, L. A., Hall, V. C., and Briggs, R. M., relation between time and intensity in photographic exposure. V., B., 509.
- Jones, L. D., Ayres, A. U., and Sharples Specialty Co., centrifugal machines and processes, (P.), B., 545*.
- Jones, L. D., and Sharples Specialty Co., method and apparatus for centrifugally separating substances [e.g., wax from oils], (P.), B., 549*.
- Jones, L. D. See also Sharples Specialty Co.
- Jones, L. T., variable mass of the electron, A., 287.
- Jones, L. T. See also McCarty, L. E.
- Jones, L. W., and Major, R. T., substituted *o*-alkylhydroxylamines chemically related to medicinally valuable amines, A., 754.
- Jones, L. W., and Mason, J. P., rearrangement of acid azides and hydroxamic acids of geometrical isomerides, A., 1185.
- Jones, M. R., inorganic salt metabolism of dogs. III. Deposition and resorption of bone, A., 373.
- Jones, N. C. See Booth, H. S., and Hodgson, A. E.
- Jones, O. M. See Shaxby, J. H.
- Jones, P. T. See MacInnes, D. A.
- Jones, R. C. See Griscom-Russell Co.
- Jones, R. L. See Nelson, V. E.
- Jones, T. G. H., olefinio terpene ketones from volatile oil of flowering *Tagetes glandulifera*. II., A., 43.
- Jones, T. G. H. See also Heap, T.
- Jones, T. J., probability of ionisation of mercury vapour by electron impact, A., 708.
- Jones, W. See Calvery, H. O.
- Jones, W. R. D., refractory materials of South Wales, B., 410.
- magnesium and its alloys, B., 681.
- Jones, W. R. D. See also Cook, W. T.
- Jonesco-Matin, A., and Bordeianu, C., determination of mercury salicylate and lactate by a mercurimetric method, B., 891.
- Joos, G., colour and magnetism of ions, A., 94.
- theory of the isotope effect in line spectra, A., 915.
- Joos, G., and Hüttig, G. F., electron affinity of hydrogen, A., 84.
- Jooss, P. F., and Ficherouille, H. E., luminous enamels, (P.), B., 779.
- Jordan, C. W. See Fulweiler, W. H.
- Jordan, E. M., effect of injected dextrose on tolerance, A., 594.
- Jordan, H. See Winter, W.
- Jordan, L., Grenell, L. H., and Herschman, H. K., tarnish-resisting silver alloys, B., 880.
- Jordan, L., Quick, G. W., and United States, [vanadium-iron] alloy, (P.), B., 783.
- Jordan, L. See also Quick, G. W.
- Jordan, P., quantum mechanics of degenerated gases, A., 915.
- new derivation of quantum mechanics. II., A., 916.
- Jordt, M., production of sparkling wines, (P.), B., 711.
- Joret, G., and Radet, E., value of "dissolved" waste hide as a manure, B., 373.
- simplified molecular constant applied to milks from the Somme, B., 794.
- Jørgensen, G., acrid and poisonous qualities of seeds and cakes from *Cruciferae*, B., 56.
- Jørgensen, H., use of chromate solutions as comparison solutions in colorimetric measurements, A., 952.
- Jorissen, W. P., reaction regions, A., 732.
- Jorissen, W. P., and Beek, P. A. A. van der, activation of oxygen (especially during the oxidation of aldehydes), A., 326.
- Jorissen, W. P., and Groeneveld, C., reaction regions. XIII. Influence of size of particles of the reacting substances and of the nature of the igniter, A., 313.
- reaction regions. XIV. Closed reaction region, A., 732.
- Jorissen, W. P., and Kayser, G. M. A., reaction regions. XV. Influence of mixtures of carbon dioxide and carbon tetrachloride vapour on the inflammability of a methane-air mixture, A., 733.
- Jorissen, W. P., and Ongkiebong, B. L., reaction regions. XII. Reaction space Fe-Mg-Al-S, A., 112.
- Joseph, A. F., action of silica on electrolytes, A., 107.
- moisture equivalent of heavy soils. II., B., 232.
- determination of soil colloids, B., 951.
- Joseph, A. F., and Hancock, J. S., priming of saline waters [in locomotive boilers], B., 687.
- Joseph, A. F., and Oakley, H. B., anomalous flocculation of clay, A., 513.
- Joseph, A. F., and Whitfield, B. W., organic matter in heavy alkaline soils, B., 232.
- Joseph, G. See Lecher, H.
- Joseph, H. See United States Sand Paper Co.
- Joseph, P. J., protection of ferrocium, (P.), B., 448.
- Joseph, T. L., Royster, P. H., and Kinney, S. P., utilisation of manganiferous iron ores, B., 413.
- Josephson, J. B. See Clark, G. W.
- Josephson, K., nitrogenous glucosides, A., 1057.
- amygdalase, gentiobiose, gentianase, A., 1111.
- Josephson, K., and Euler, H. von, enzymic hydrolysis of dipeptides, IV. Intestinal crepsin, A., 175.
- Josephson, K. See also Euler, H. von.
- Josephy, E., and Riesenfeld, E. H., formation of polythionates, A., 220.
- Joshi, S. S., decomposition of nitrous oxide in the silent electric discharge, A., 635.
- Joshi, S. S. See also Elliott, G. A.
- Josi, S. E., and Hubbard, A. E., insulation of ceramic kilns, B., 410.
- Jost, H., biological importance of acid-soluble organic phosphorus of blood, A., 584.
- Jost, H. See also Embden, G.
- Jost, L., potential differences in the apple, A., 388.
- Jost, W. See Bodenstein, M., and Tubandt, C.
- Jostes, F. See Braun, J. von.
- Jouanovits, J., [polarisation microscope for controlling] tanning and the penetration of the tannin, B., 636.
- Joubert, J. M. See Norris, J. F.
- Joukov, J. J., Tschukarev, S. A., and Bushmakina, J. N., distribution of hydrogen ions between water and gelatin, A., 726.

- Jouniaux, A., variation of mol. wt. of lead with temperature, A., 99.
 anomalies of Raoult's cryoscopic law, A., 410.
 evolution of mineral substances and its analytical applications, A., 845.
- Jouot. See Travers, A.
- Jourdan, C. J. N., composition of crocidolite (Cape blue asbestos), A., 955.
- Jourdan, F., alkaline treatment of leucite, B., 106.
 treating leucite and other sodium and potassium silicates with lime for extracting potassium or sodium aluminates, (P.), B., 331*.
- Jovellanos, C. M., and West, A. P., salts of α -linolic tetrabromide from Philippine lumbang oil, A., 1168.
- Jovinet. See Lorette.
- Jubitz, W., influence of plastic deformation on the thermal expansion coefficient of metals, A., 613.
- Judy, W. H., and Sumet Corporation, metallic composition, (P.), B., 169.
- Jüdefeind, A., preparation of alcohol-soluble, bromine-containing condensation products, (P.), B., 684.
- Juhász, A. See Csik, L.
- Juliard, A., formation of ozone by silent electric discharge in presence of other gases, A., 635.
- Juliard, A. See also Moens, R., and Pinkus, A.
- Julien, G., production of double salts of aluminium or other metals, (P.), B., 601.
- Juna, K. See Weimarn, P. P. von.
- Junck and Küpper, A., comparison of colorimetric methods for the determination of perchlorate, B., 701.
- Jung, cross-current air-stream cooler for potash liquors, B., 477.
- Jung, A., influence of hydrogen-ion concentration on the solubility of uric acid, A., 589.
- Jung, F. T. See Koppanyi, T.
- Jung, H. See Meisenheimer, J.
- Jung, P. See Heinicke, H.
- Jungkunz, R. See Pritzker, J.
- Jungmann, H. See Braun, J. von.
- Junker, F. See Willeke, H.
- Junkersdorf, P., and Hanisch, S., variation in relative weight and composition of the dog's heart in certain pathological conditions, A., 790.
- Jurišić, P. J., anomalous osmosis through collodion membranes, A., 200.
 uptake of dyes by red blood-corpuscles, A., 369.
 effect of hydrogen- and hydroxyl-ion concentration on water transport through a collodion membrane, A., 825.
- Jury, A. E., Smith, O. H., and General Rubber Co., preservation of latex, (P.), B., 372.
- Jury, A. E. See also General Rubber Co.
- Just, F. See I. G. Farbenind. A.-G.
- Justin-Mueller, E., dyeing with hydron blue, B., 474.
 treatment [development] of sulphur dyeings with sodium bisulphite, B., 475.
- K.**
- K.D.P., Ltd., concentrating [rubber] latex, (P.), B., 52.
 process and apparatus for concentration of [rubber] latex, (P.), B., 306.
- Kabakjian, D. H., luminescence due to radioactivity, A., 290.
- Kabos, M. See Fantl, P.
- Kaburaki, H. See Tamura, K.
- Kačer, F. See I. G. Farbenind. A.-G.
- Kach, K. L. See Dédek, J.
- Kadow, A., casting molten metal, (P.), B., 47.
- Kadow, A., and Vacuum Casting Co., process and apparatus for casting liquid molten metal, (P.), B., 81*.
- Kägi, H. See Hartmann, M.
- Kälberer, W. See Magnus, A.
- Kämpf, A., manufacture of artificial threads; ribbons, films, and the like of viscose, (P.), B., 139.
 manufacture of soluble tanning condensation products from aromatic hydroxy-compounds, (P.), B., 421.
- Kärgel, W. See Baumgarten, P.
- Kaess, F. See Manchot, W.
- Kagan, M. See Spitalsky, E.
- Kahane, E., source of error in the determination of carbamide in blood, A., 271.
 detection of traces of iron in combustible volatile substances, A., 848.
 analysis of vulcanised rubber; direct determination of free carbon, B., 51.
 determination of sulphur in rubber, B., 532.
 perchloric acid as an oxidising agent for the determination of sulphur in rubber, B., 823.
- Kahanowicz, M., spectrum of the Pickering type in argon, A., 2.
- Kahl, F. See John, H.
- Kahl, L. See Rütgerswerke Akt.-Ges.
- Kahle. See Bodenstein, M.
- Kahlenberg, L., and French, S. J., potential of aluminium in aqueous solutions, A., 522.
- Kahler, O. See Glaser, E.
- Kahn, M., Le Breton, E., and Schaeffer, G., treatment of yeasts by autolysis, (P.), B., 375.
- Kahn, M., Le Breton, E., Schaeffer, G., and Société Française des Produits Alimentaires Azotés, autoheterolysis of animal and vegetable substances, (P.), B., 171*.
- Kahn, M., Mayer, R., and Grasselli Dyestuff Corporation, catalytic reduction of organic nitro-compounds, (P.), B., 838*.
- Kahn, M., and Société Française des Produits Alimentaires Azotés, manufacture of nitrogen-containing products, (P.), B., 828*.
- Kailan, A., [decomposition of formic acid by ultra-violet light], A., 39.
 chemical effects of penetrating radium radiation; organic compounds containing nitrogen, A., 290.
- Kailan, A., and Blumenstock, A., velocity of hydrolysis of stearylactone with alcoholic alkali, A., 1148.
- Kailan, A., and Goitein, B., chlorohydrin formation in glycerol and glycol and esterification of hydroxy- and 2:5- and 2:6-dihydroxy-benzoic acids and of phenylacetic acid in glycerol, A., 1187.
- Kailan, A., and Lipkin, L., velocity of esterification of nitrobenzoic acids in glycerol, A., 1148.
- Kailan, A., and Melkus, K., ester formation in ethylene glycol, A., 749.
- Kailan, A., and Olbrich, L., velocity of decomposition of potassium persulphate in aqueous solution, A., 213.
- Kailan, A., and Schroth, J., electrical conductivity of mixtures of hydrochloric and sulphuric acids with orthophosphoric acid prepared in various ways, A., 23.
 esterification of malonic acid by glycerol and hydrogen chloride, A., 26.
- Kaiser, A. See Bardenheuer, P.
- Kaiser, L. See Lichtenberger, T.
- Kaiser, O. See Society of Chemical Industry in Basle.
- Kaja, P., corrosion of lead by mineral waters, B., 911.
- Kalberer, O. E., spectrometric detection of fruit wine in wine, B., 686.
- Kalberer, O. E. See also Widmer, A.
- Kalbfeisch Corporation. See Fredriksson, J. F.
- Kalff, J., synthesis of phenylcoumalin and of a quinoline derivative, A., 1196.
- Kalinowsky-Stier, rapid counter-current mixer, B., 735.
- Kaliński, T. See Malachowski, R.
- Kallauner, O., technical analysis of burnt magnesite, B., 106.
- Kalle, K. See Bierich, R.
- Kalle & Co. Akt.-Ges., producing nitriles of the benzanthrone series, (P.), B., 101.
- Kalle & Co. Akt.-Ges., Schmidt, M. P., and Neugebauer, W., manufacture of halogenation products of perylenetetracarboxylic di-imido and its derivatives, (P.), B., 901.
- Kalle & Co. Akt.-Ges., Schmidt, M. P., and Voss, J., dyes from perylene, (P.), B., 212.
 softening of artificial substances from cellulose esters, (P.), B., 580.
- Kalle & Co. Akt.-Ges. See also Merte, W., and Schmidt, M. P.
- Kallmann, H., and Bredig, M. A., ionisation processes in hydrogen and nitrogen, A., 604.
- Kallmann, H., and Dorsch, K. E., forces operating in thin layers; dielectric constants of thin layers, A., 618.
- Kallmann, H. See also Dorsch, K. E.
- Kaltenbach, M., concentration of nitric acid, (P.), B., 329.
- Kamenz, E. See Hüchel, W.
- Kammerman, P., toxic principle of *Erythrophloeum lasianthum*, A., 600.

- Kamerman, P., toxicity of genus *Cotyledon*, cause of the disease "krimpsiekte," A., 600.
portable calomel electrode for the determination of p_H values in the field, B., 919.
- Kameyama, N., P.D. across a semi-permeable membrane, A., 316.
- Kameyama, N., and Oka, S., heat of combustion of calcium cyanamide, A., 718.
- Kameyama, N., and Semba, T., [determination of water in glycerol by measuring the] conductance of potassium chloride in glycerol, A., 330.
- Kameyama, N., Yamamoto, H., and Oka, S., activity of chlorine at various partial pressures, A., 419.
free energy of chlorine, A., 519.
- Kami, Y., changes in the tenacity and elongation of artificial silk in the normal and wet conditions, II., B., 102.
- Kami, Y., and Nakashima, S., transverse sections of artificial silk, B., 438.
- Kamienski, E. See Hlasko, M.
- Kamiguchi, Y. See Kidokoro, T.
- Kaminska, H. See Milobedski, T.
- Kaminsky, G. See Bonhoeffer, K. F.
- Kamishima, Y., [iron] alloy of high specific electrical resistance unoxidisable at a high temperature, (P.), B., 605.
non-magnetic alloy of high electrical resistance, (P.), B., 847.
- Kamm, E. D. See Harvey, J., Heilbron, I. M., and Morton, R. A.
- Kammerer, H., photographic papers for making prints from tracings, (P.), B., 93, 269*.
- Kammermann, G., treatment of oleaginous seeds or oleaginous vegetable substances for the extraction of oil therefrom, (P.), B., 196*.
- Kammüller, A. See Freudenberg, K.
- Kampen, G. B. van, lactic acid in phanerogams, A., 995.
- Kamura, H., gaseous reduction of iron ores, B., 412.
- Kandilarov, G. See Balarev, D.
- Kane, N. L. R. See Wolfenden, J. H.
- Kanegafuchi Boseki Kabushiki Kwaisha. See Kobori, K.
- Kanga, D. D., Ayyar, P. R., and Simonsen, J. L., conessine, A., 471*.
- Kann, E., biological hydrolytic units from protein complexes, B., 284.
- Kansas City Gasoline Co. See Lasher, H. M., and Wellman, F. E.
- Kantrowitz, H. See Koenigs, E.
- Kapferer, C. A., preparation of a plastering mortar, (P.), B., 966.
- Kaplan, J., glow in hydrogen at high pressure, A., 738.
- Kaplanski, S., electrolytic reduction of ketoximes and aldioximes of the aromatic series, A., 1076.
- Kaplanski, S. See also Gulevitch, W. S.
- Kappanna, A. N., kinetics of the intramolecular transformation of ammonium thiocyanate into thiocarbamide and thiocarbamide into ammonium thiocyanate, A., 943.
- Kappen, H., buffer capacity in acid soils, B., 306.
relation between soil acidity and the physiologically acid reaction of some fertiliser salts, B., 308.
- Kappen, H., and Bergeder, W., relation between physiological acidity of fertiliser salts and soil acidity, B., 55.
- Kappen, H., and Breidenfeld, J., acidic properties of silicic acid and certain silicates, B., 9.
- Kappen, H., and Rung, P., ionic exchange of zeolitic silicates with hydrolysable salts. I. Experiments with permutite, B., 364.
- Kapusiński, W., line fluorescence of cadmium vapour, A., 292.
fluorescence of cadmium, A., 712.
- Kar, K. C., molecular scattering of light in a binary liquid mixture, A., 295.
- Karantassios, T., complex compounds of stannic and stannous iodides, A., 950.
- Karasawa, R., influence of bile acids on the protein metabolism of the sex glands and the significance of choleic acid, A., 171.
effect of bile acids on the protein and purine metabolism and the significance of choleic acid, A., 899.
relationship between amino-acids and bile acids in fat digestion in the intestine, A., 899.
- Karasawa, R., and Shoda, M., behaviour of bile acids in the digestion of protein, A., 901.
- Karashima, J., furan compounds derived from sugars, A., 1107.
- Karasiewicz, S., influence of sodium carbonate and calcium chloride on the acidity of maize sap (*Zea mais*, L.), A., 798, 908.
- Karczag, L., electropy, A., 514.
- Kardo-Sysojeva, H. See Kostytshev, S.
- Karelitz, S., and Shohl, A. T., rickets in rats. I. Metabolism on diets high in calcium and low in phosphorus. II. Effect of adding phosphate to diet of rachitic rats, A., 790.
- Karelitz, S. See also Shohl, A. T.
- Kargin, V. A. See Rabinovitch, A. J.
- Kargl, G. R., error in polarisation [of beet sugar solutions] produced by evaporation, B., 920.
- Karim, A. See Finch, G. I.
- Karlin, H. See Kohn, M.
- Karlowska, G. See Korczyński, A.
- Karlson, L. E. See Muchin, G. E.
- Karnop, R., and Sachs, G., behaviour of aluminium crystals under tension. II., A., 300.
recrystallisation of metals, A., 504.
- Karpen, V., cells with identical, unchangeable electrodes, A., 1144.
- Karpen & Bros., S. See Carter, C. B.
- Karpinsky, S., and Anderson, J. S., manufacture of butter, (P.), B., 858*.
- Karplus, H., compositions for the prevention of boiler scale, (P.), B., 958.
- Karpov, B. G., separation of platinum and iridium, A., 1162.
- Karr, W. G. See Reinhold, J. G.
- Karraker, P. E., production of nodules on different parts of the root systems of lucerne plants growing in soils of different reaction, B., 760.
nitrates and wheat yields after certain crops, B., 949.
variable occurrence of nitrates in soils, B., 950.
delayed effect of liming [soils], B., 972.
- Karrer, P., treatment of ["immunised"] cotton fibres, preparatory to dyeing, (P.), B., 71.
treatment of [immunised] cotton and viscose silk fibres preparatory to dyeing, (P.), B., 840.
- Karrer, P., and Benz, P., glycerolphosphoric acids, A., 227.
- Karrer, P., and Biedermann, H., preparation of fisetol, A., 770.
- Karrer, P., and Bloch, A., constitution of isomeric monomethyl ethers of phloroglucinolaldehyde and of cotoin, A., 564.
- Karrer, P., and Ehrenstein, M., alkaline hydrolysis of *D*-lysine acid [dibenzoyl-lysine], A., 55.
- Karrer, P., and Salomon, H., two new alkaloids from yohimba bark, A., 64.
vegetable colouring matters. III. Colouring matter from saffron, A., 571.
- Karrer, P., and Schubert, P., polysaccharides. XXXVI. Enzymic degradation of viscose silks, B., 648.
- Karrer, P., and Wehrli, W., amidated cotton, B., 102.
- Karrer, P., and Widmer, R., vegetable colouring matters. II., A., 252.
vegetable colouring matters. V. Primula colouring matters, A., 1197.
- Karrer, P., and Widmer, R., [with Hürlimann, H., and Nievergelt, O.], vegetable colouring matters. I. Constitution of some anthocyanidins, A., 252.
- Karrer, P., Widmer, O., Helfenstein, A., Hürliman, W., Nievergelt, O., and Monsarrat-Thomas, P., vegetable colouring matters. IV. Anthocyanins and anthocyanidins, A., 1197.
- Karrer, S. See Fazel, C. S.
- Karrick, L. C., thermal relations in a Scottish oil-shale retort, B., 271.
- Karschulin, M. See Plotnikov, J.
- Karssen, A. See Bijvoet, J. M., and Smits, A.
- Karström, H. See Virtanen, A. I.
- Kartashev, A. K. See Kukharensko, I. A.
- Kasanski, B. A. See Zelinski, N. D.
- Kasarnovsky, J., and Proskurnin, M., electron affinity of hydrogen and the density of the hydrides of the alkali metals, A., 718.
- Kashtanov, L. See Spitzin, V.
- Kasé, T., system: iron-cobalt-nickel, A., 830.
- Kasiwagi, I., fufuraldehyde derivatives. III. Transitory coloration of fufuryl ketones, A., 61.
action of nitromethane and its homologues on benzil, A., 246.
fufuraldehyde derivatives. IV. Nitro derivatives of the fufurylthylene series, A., 671.
action of nitromethane and its homologues on benzil, A., 972*.
- Kassel, L. S., and Noyes, W. A., jun., photochemical studies. V. Photochemical decomposition of ammonia by relatively short wave-lengths, A., 1154.
- Kassler, H., recovery of alumina from natural silicates, B., 105.

- Kassner, G., manufacture of nitric acid and its salts, (P.), B., 218*, 300*.
- Kast, H., properties of initiating explosives, B., 61.
explosive ammonium salts, B., 716.
replacement of nitroglycerin in ammonium nitrate explosives, B., 925.
- Kast, H., and Metz, L., instability and explosiveness of bleaching powder and calcium hypochlorite, B., 297.
- Kast, H., and Schmidt, A., colorimetric determination of carbon monoxide by means of an ammoniacal silver solution, B., 748.
- Kast, W., dielectric investigation of the anisotropic melting of *p*-azoxyanisole, A., 498, 816.
X-ray investigations on solid crystalline and molten anisotropic *p*-azoxyanisole, A., 816.
synthesis of nematic fusions, A., 1017.
- Kastler, A., treatment of pollucite and preparation of caesium chloride, B., 439.
- Kastner, determination of sulphur in pyrites by the Lunge-Berl method, B., 480.
- Katagiri, H., influence of fatty acids and hydroxy-acids and their salts on alcoholic fermentation by living yeast. II. Propionic, butyric, isobutyric, glycolic, lactic, hydroxyisobutyric, α - and β -hydroxybutyric acids and their sodium salts, A., 700.
- Katagiri, H. See also Biilmann, E.
- Katayama, I., and Killian, J. A., sugar, inorganic phosphorus, and lactic acid of blood after administration of insulin and dextrose, A., 380.
- Kato, S. See Wada, I.
- Katoka, S. See Weimann, P. P. von.
- Katona, G. See Hess, K.
- Katscher, E. See Lustig, O.
- Katsuki, S. S. See Talbert, G. A.
- Katterbach, L. See Siebe, P.
- Kattwinkel, R., laboratory steam superheater and evaporating bath with superheated steam, A., 642.
apparatus for the [collection of ammonia in the] determination of nitrogen, A., 846.
automatic apparatus for the determination of water, B., 63.
apparatus for the determination of phenol and pyridine [in tar oils], B., 292.
determination of corrosive sulphur in motor benzol, B., 737.
- Katz, A. B. See Hepburn, J. S.
- Katz, J. R., X-ray spectrum of the so-called Gladstone's alkali-cellulose compound (in relation to the change in X-ray spectrum of cellulose on swelling in concentrated solutions of alkali hydroxides). I, A., 309.
influence of polymerisation on the Röntgen diagram. I. Polymerisation and amorphous Röntgen spectra, A., 411.
Röntgen-spectrography of rubber and of similar extensible substances; amorphous rings and their alterations with extension, B., 532.
- Katz, J. R., and Gerngross, O., X-ray spectrographic examination of the tanning of membranes and tendons, B., 150.
- Katz, J. R., Selmann, J., and Heyne, L., polymerisation and rubber, B., 610.
- Katz, L. N. See Banus, M. G., and Rapport, D.
- Katz, S. H., apparatus for the determination of gases [carbon monoxide], (P.), B., 469.
- Kauffman, H. L., Clark, I. A., and Kauffman, H. L., decolorising, clarifying, and purifying petroleum oils, (P.), B., 741.
- Kauffman, M. See Gerritzen, S. C. L.
- Kauffmann, E. H., rotatory roasting furnace, (P.), B., 225.
- Kauffmann-Cosla, O., determination of carbon in dilute organic solutions: application to urine and other biological fluids, A., 80.
- Kauffmann-Cosla, O., Zörkendörfer, R., and Zörkendörfer, W., action of mineral waters on carbohydrate metabolism; experiments [on diabetics], A., 479.
- Kauffmann-Cosla, O., and Zörkendörfer, W., influence of mineral salts on metabolism, A., 692.
- Kaufner, F. See Wacker Ges. für elektrochem. Ind. m.b.H., A.
- Kaufmann, A., and Kjelsberg, F., butyrates of linalol and the linalyl acetate contents of lavender oil, B., 923.
- Kaufmann, H. P., [thiocyanogen chloride], A., 232.
synthetic drugs. III. [Physiological] action of acetylsalicylic acid and attempts to produce analgetics, A., 663.
synthetic drugs. II. Theory of laxatives, A., 1083.
synthetic drugs. I. Significance of the acyl group in acylated drugs, B., 155.
- Kaufmann, H. P., and Hansen-Schmidt, E., theory of the hardening of fats, B., 226.
- Kaufmann, W., and Kohler, M., preparation of cellulose for the manufacture of artificial silk, etc., (P.), B., 934.
- Kaura, B. D. See Bonner, W. D.
- Kautz, H., and Società Anonima Prodotti Industriali, production of rice starch specially suited for the manufacture of glucose, (P.), B., 264.
- Kautzky, H. See I. G. Farbenind. A.-G.
- Kauwertz, H., intermingling of liquids [motor fuels] in any desired proportion, (P.), B., 7*.
- Kavakibi, S. See Kohn-Abrest, E.
- Kavčić, J. See Samee, M.
- Kawai, S., effect of neutral salts on the potentials of glycine solutions as compared with the hydrogen electrode, A., 210.
synthesis of the homologue of urushiol. II, A., 1183.
- Kawenoki, G. See Jablęński, K.
- Kay, F. W., and Stuart, N., stereochemistry of hydronaphthalenes. I. Decahydro- β -naphthamides, A., 147.
- Kay, G. F. See Bain, J. W.
- Kay, H. D., function of a phosphatase in bone formation, A., 174.
colorimeter lamp, A., 955.
- Kay, H. D. See also Aitken, R. S., and Brain, R. T.
- Kay, J. H. See Hall, D.
- Kay, O., apparatus for cracking oils, (P.), B., 900.
- Kaya, S. See Honda, K.
- Kaye, F., vulcanised products for use in the manufacture of rubber goods, of paper or paper boards, or for coating fabrics, (P.), B., 565.
- Kaye, G. W. C., and Higgins, W. F., thermal conductivity of vitreous silica and crystalline quartz, A., 12.
- Kayser, E., fermentation of cane molasses, B., 666.
- Kayser, G. M. A. See Jorissen, W. P.
- Keane, J. See O'Donoghue, B.
- Keasbey-Mattison, Ltd. See Grimason, J. S.
- Keeler, E. A., and Leeds & Northrup Co., ionic concentration meter, (P.), B., 47.
- Keeler, L. J., Bensing, Le R. P., and Koelliker, G. P., electrolytic rectifier, (P.), B., 530.
- Keen, W. H., alloy steel, (P.), B., 337.
- Keenan, C. J., Kennedy, E. P., Kirsch, G. H., and Alaska Pulp & Paper Co., [paper]-pulp forming machine, (P.), B., 362.
- Keenan, G. L., optical identification of alkaloids, B., 858.
- Keenan, G. L. See also Hann, R. M.
- Keene, A. D., and Westinghouse Electric & Manufacturing Co., heat-treating [electric] furnace, (P.), B., 257.
electric furnace, (P.), B., 370, 850.
- Keene, E. W. W., filtering apparatus, (P.), B., 176.
- Keener, C. E., and Regester, R. T., biochemical oxygen demand of raw and treated sewage, B., 94.
- Keeser, E., and Keeser, I., alcohol poisoning. II, A., 276.
- Keeser, E., and Keeser, J., localisation of veronal and phenyl-ethyl- and diallyl-barbituric acids in the brain (the problem of sleep), A., 1110.
- Keeser, I. See Keeser, E.
- Keeser, J. See Keeser, E.
- Keesom, W. H., diffraction of X-rays in fused sodium and potassium, A., 923.
- Keesom, W. H., and Andrews, D. H., specific heats of solid substances at the temperatures attainable with the help of liquid helium. I. Measurements of the atomic heat of lead, A., 1131.
- Keesom, W. H., and Jansen, (Miss) A. F. J., thermal expansion of silver between $+101^\circ$ and -253° , A., 1131.
- Keesom, W. H., and Onnes, H. K., possibility of an allotropic change at the point of transition to the superconducting state, A., 716.
- Keesom, W. H. See also Ebert, L., Urk, A. T. van, Vegard, L., and Vorländer, D.
- Keffler, L. J. P., and Guthrie, F. C., heats of combustion of proposed secondary standard substances and of position and optical isomerides, A., 193.
- Kegel, influence of the chemical and physical properties of brown coal on its briquetting qualities, B., 576.
- Kegel, F. See Traube, W.
- Kehane, E. See Lematte, L.
- Kehren, G., [pit] furnace [for ingots], (P.), B., 818.
- Kehrmann, F., [tetraphenylethane dyes], A., 1067.
constitution and colour. XIV, A., 1184.
- Kehrmann, F., Goldstein, H., and Salis, A. von, constitution and colour. XIII. Constitution of triphenylmethane dyes, A., 355.

- Kehrmann, F., and Logoz, R., fluorindine derivatives of naphthalene, A., 578.
- Kehrmann, F., and Mermod, C., synthesis of phenazine and some derivatives, A., 260.
- Kehrmann, F., and Perrot, B., new azine colouring matters from naphthalene, A., 261.
- Kehrmann, F., and Rohr, M., coloured derivatives of tetraphenylmethane. X. Derivatives of diphenylcarbazine, A., 1205.
- Keiding, E., and Keiding, J., production of complex aurothio-sulphate compounds, (P.), B., 892.
- Keiding, J. See Keiding, E.
- Keil, W., syntheses of tetramethylenediamine and pyrrolidine, A., 137.
- Keil, W., Linneweh, W., and Poller, K., extractives of reptilian muscle (python), A., 987.
- Keilin, D., influence of carbon monoxide and light on indophenol oxydase of yeast-cells, A., 592.
- Keilling, J. See Guittouneau, G.
- Keinath, G., and Siemens & Halske A.-G., optical pyrometer, (P.), B., 863*.
- Keiner, E. See I. G. Farbenind. A.-G.
- Keiner, L. See Bechhold, H.
- Keitel, H., rate of dissolution and displacement of sylvine and rock salt from natural sylvinites and "hard salt," B., 478.
- Keitel, H., and Gerlach, leaching [crude carnallite] with final mother-liquors [from previous operations], B., 479.
- Keith, G. See Keith & Blackman Co., Ltd., J.
- Keith, M. H. See Mitchell, H. H.
- Keith, N. S., amalgamator, (P.), B., 682.
- Keith & Blackman Co., Ltd., J., and Keith, G., controlling gas burners for furnaces, (P.), B., 517.
- centrifugal apparatus for dust separation, (P.), B., 689.
- Kelland, J. W., treating tobacco, (P.), B., 93.
- Kelleher, J., and Harper Electric Furnace Corporation, electric furnace, (P.), B., 785.
- tunnel kiln, (P.), B., 832.
- electric tunnel kiln, (P.), B., 943.
- Keller, A. See Zielstorff, W.
- Keller, C. H., and Minerals Separation North American Corporation, concentration [flotation] of ores, (P.), B., 633.
- Keller, F., Schnitzspahn, K., and Grasselli Dyestuff Corporation, dry diazo composition, (P.), B., 69.
- Keller, O., and Schöbel, W., *Helleborus*, A., 799.
- Kelley, F. C. See British Thomson-Houston Co., Ltd.
- Kelley, G. C., treatment of oil, (P.), B., 901*.
- Kelley, K. K. See Giauque, W. F.
- Kelley, W. V. D., and Prizma, Inc., preparation of a [coloured] photographic image, (P.), B., 715.
- Kellitt, W., [metal lining plates for] rubber latex coagulating tanks, (P.), B., 610.
- Kellner, G. W., Schrödinger's theory and the ionisation potential of helium, A., 912.
- Kellogg, J. L., method of obtaining coffee flavour, (P.), B., 123.
- Kellström, G., exact determinations of the K-series of palladium and silver, A., 286.
- critical L-absorption of silver, A., 912.
- Kelly, C. D., bacteria causing spoilage of evaporated milk, B., 425.
- Kelly, C. I., factors affecting internal combustion, B., 692.
- Kelly, M. W., nitrogen content of hide substance, B., 20.
- Kelly, M. W. See also Thomas, A. W.
- Kelly, O. W. See Beaumont, A. B.
- Kelly, T. D., ferro-chrome alloy, (P.), B., 194.
- [copper-iron] alloys, (P.), B., 632.
- [nickel-molybdenum-chromium] alloy, (P.), B., 847.
- Kelly, W. J., and Goodyear Tire & Rubber Co., manufacture of mercaptobenzthiazole, (P.), B., 572.
- Kelly-Springfield Tire Co. See Petersen, A. H.
- Kelp Products Co. See Loomis, C. C.
- Kelch, A. K. See Gaebler, O. H.
- Kelty, H. A., supplementary charges for internal-combustion engines, (P.), B., 36.
- Kelver, C. See Flammer, E.
- Kemal, H., fate of isopropyl alcohol in the human organism, A., 990.
- Kemble, E. C., quantum theory of the Zeeman effect for band lines, A., 1000.
- rotational distortion of multiplet electronic states in band spectra, A., 1121.
- Kemble, E. C., Mulliken, R. S., and Crawford, F. H., Zeeman effect in the Angström CO bands, A., 1119.
- Kemble, E. C. See also Bourgin, D. G.
- Keményfi, A. G. See Jendrassik, A.
- Kemet Laboratories Co., Inc. See Cooper, H. S.
- Kemmerer, G., and Hallett, L. T., organic micro-combustion, A., 269.
- improved micro-Kjeldahl ammonia distillation apparatus [in analysis of lake-waters], B., 958.
- Kemmler, A., manufacture of chamois and like leather, (P.), B., 306.
- Kemp, A. R., direct determination of hydrocarbon in raw rubber, gutta-percha, and related substances, B., 372.
- Kemp, A. R., and Western Electric Co., Inc., plastic material, (P.), B., 790.
- Kemp, A. R. See also Williams, R. R.
- Kemp, C. N. See Thomson, J. L.
- Kemp, P., and Kittl, T., bearing metal, (P.), B., 560.
- Kemp, W. W., gas production, (P.), B., 960.
- Kemper-Thomas Co. See Hilton, R. W.
- Ken-Crip Corporation, apparatus for creating a vacuum, (P.), B., 160.
- Kendall, E. C., isolation of thyroxin, A., 486.
- Kendall, E. C., and Osterberg, A. E., halogeno- and hydroxy-derivatives of 2-ketodihydro- and 2-ketohexahydro-indole-3-propionic acid, and of 2-ketohexahydrobenzofuran-3-propionic acid, A., 973.
- Kendall, J., Jette, E. R., and West, W., separation of radium and of mesothorium-1 from barium by the ionic migration method, A., 86.
- Kendrick, W. C., and Souder, M. E., repairing sulphuric acid chamber bottom during operation, B., 747.
- Kennard, D. C. See Bethke, R. M.
- Kennard, E. H., excitation of fluorescence in fluorescein, A., 396.
- quantum mechanics of linear oscillators, A., 915.
- Kennaway, E. L., and Hieger, I., nitroprusside reaction in normal tissues and tumours, A., 789.
- Kennedy, A. B., method and apparatus for leaching, (P.), B., 511.
- Kennedy, A. L. See Loomis, C. C.
- Kennedy, C. See Palmer, L. S.
- Kennedy, E. P. See Keenan, C. J.
- Kennedy, J. E., disintegrating or pulverising apparatus, (P.), B., 160*.
- Kennedy, R. P., use of light filters in colorimetry; determination of haemoglobin, A., 67.
- spectrophotometric study of blood solutions, A., 369.
- determination of iron in tissues, A., 987.
- Kenner, J., and Wilson, John, Jackson and White's synthesis of phenanthrene, A., 655.
- Kenner, J. See also Dadswell, H. E., and Earl, J. C.
- Kenney, E. F., heat treatment of steel, (P.), B., 337.
- Kenney, W. J., and Zeolite Engineering Co., reconditioning zeolite water softeners, (P.), B., 350.
- Kent, N. A., Taylor, L. B., and Pearson, H., fine structure of the Balmer lines of hydrogen, A., 177, 997.
- Kent, R. S., sectional retort for retort kilns, (P.), B., 1.
- Kent-Jones, D. W., Chitty, C. W., and Woodlands, Ltd., treatment of cereal substances, (P.), B., 763*.
- Kent-Jones, D. W., and Herd, C. W., washing of gluten from flour, B., 761.
- numerical expression for the colour of flour, B., 762.
- Kent-Jones, D. W. See also Chitty, C. W.
- Kenty, C., and Turner, L. A., surface layers on tungsten produced by active nitrogen, A., 913.
- Kenworthy, C. F., annealing furnaces, (P.), B., 115.
- Kenyon, J., and Robinson, P. H., diphenyl series. IV. Halogenation of 4-aminodiphenyl, A., 142.
- Kenyon, J. See also Bell, F., Clarke, S. G., and Crawford, J. W. C.
- Keppeler, G., bleaching action of fuller's earth upon oils, B., 493.
- Kerckhoff, W. See Benary, E.
- Kermack, W. O., Lambie, C. G., and Slater, R. H., carbohydrate metabolism. II. Influence of methylglyoxal and other possible intermediaries on insulin hypoglycemia, A., 282.
- Kermack, W. O., and Williamson, W. T. H., stability of suspensions. II. Rate of sedimentation of kaolin suspensions containing colloidal silicic acid, A., 1024.
- Kern, E. F., reduction of tin oxide and cassiterite concentrates, B., 680.
- Kern, E. J. See Wilson, John Arthur.

- Kern, F. C., and Kern, F. E., manufacture of porous siliceous objects [from clay, etc.], (P.), B., 878.
- Kern, F. E. See Kern, F. C.
- Kern, H. A., process for clarifying water, (P.), B., 62.
- solidified water-softening compound, (P.), B., 62.
- water softener, (P.), B., 62.
- Kern, L., manufacture of cement, (P.), B., 367.
- Kern, R. See Bloom, W., and Buchbinder, W. C.
- Kern, W. See Battegay, M.
- Kernot, J. C. See Disney, J. H.
- Kerpely, K. von; silicon steel as a constructional material and for castings, B., 680.
- Kerr, C. A., reactions of displacement in the tropic acid group. II., A., 969.
- Kerr, R. H., boa constrictor fat, A., 987.
- Kerr, R. H., Marsh, C. T. N., Schroeder, W. F., and Boyer, E. A., use of sodium nitrite in the curing of meat, B., 25.
- Kerr, R. N., dielectric constants of mixtures of organic liquids, A., 13.
- electric moments of disubstituted benzene derivatives, A., 249.
- Kerr-Lawson, D., crystallographic and optical comparison of the chlorides of lead isotopes, A., 299.
- Kerridge, P. M. T. See Furusawa, K.
- Kerschbaum, F. See Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler.
- Kerschbaum, H., duration of light-emission of atoms, A., 707.
- Kerschbaum, M., lactones with large rings—the carriers of vegetable musk aroma, A., 541.
- Kershaw, W., Barrett, F. L., and Bleachers' Association, Ltd., treatment of cellulosic materials, (P.), B., 935.
- Kershaw, W., Barrett, F. L., Parker, C. S., and Bleachers' Association, Ltd., treatment of cellulosic materials, (P.), B., 747.
- Kershaw, W. See also Parker, C. S.
- Kerstan, A., resistance of enamel to attack by mineral acids, B., 411.
- Kesseler, H. See I. G. Farbenind. A.-G.
- Kessler, E. See Gutbier, A.
- Kessler, J. J., manufacture of a drying and polymerising oil, (P.), B., 304.
- Kesting, W. See Schenck, R.
- Ketoid Co. See Nightingale, D. A.
- Kettering, C. F., Midgley, T., jun., and General Motors Corporation, motor fuel, (P.), B., 274.
- method of using low-compression fuels, (P.), B., 771.
- Keuscher, W., detection of iron in ashed sections of spinal cord, A., 788.
- Keussler, V. von, polarisation of resonance radiation of mercury vapour; influence of magnetic fields and of foreign gases, A., 491.
- Keutgen, C. H., fat splitting and glycerin recovery, B., 494.
- Kewley, J., and Jackson, J. S., burning of mineral oils in wick-fed lamps, B., 642.
- Keyes, D. B., improving fractionation in petroleum refining, B., 323.
- manufacture of magnesium, B., 390.
- Keyes, F. G., chemical equilibria in non-ideal gases the isometrics of which are linear, A., 727.
- Keyes, F. G., and Burks, H. G., isometrics of gaseous methane, A., 719.
- Keyes, F. G., and Marshall, M. J., heats of adsorption of several gases and vapours on charcoal, A., 207.
- Keyes, F. G., and National Refrigerating Co., apparatus for producing refrigeration; storing device for gas and liquids, (P.), B., 400.
- Keyes, F. G., and Taylor, R. S., adequacy of the assumption of molecular aggregation in accounting for certain of the physical properties of gaseous nitrogen, A., 507.
- Keys, D. A., auroral green line 5577 Å., A., 179.
- Keyworth, C. M., arylamine salts of some sulphonic acids of the benzene series. II. *m*-Nitrobenzenesulphonic acid, A., 235.
- identification of dyestuffs on cellulose acetate, B., 932.
- Keyworth, C. M. See also Calico Printers' Association, Ltd.
- Kezer, A., effect of time of irrigation on the production of crude protein in wheat, B., 199.
- Khabata, S. J., radioactive products present in the atmosphere of Bombay, A., 1120.
- Kharasch, M. S., and Marker, R., decomposition of unsymmetrical mercuri-organic compounds: a method of establishing the degree of electronegativity of organic radicals, A., 165.
- Kharit, A. Y., relation of the intestinal wall and of the liver to the formation of glycogen, A., 897.
- alkali reserve of the blood, A., 985.
- Khouiri, J., determination of oxalic acid in blood, urine, and body-fluids, A., 689.
- Kichlu, P. K., arc spectrum of copper, A., 2, 910.
- regularity in the spectrum of ionised neon, A., 490, 910.
- spectrum of Si⁺. II., A., 802.
- spectrum of ionised krypton, A., 998.
- Kichlu, P. K., and Saba, M. N., explanation of spectra of metals of group II. II., A., 802.
- Kickton, A., and Berg, P., production, composition, and evaluation of Marsala wines, B., 24.
- Kida, Y. See Weimarn, P. P. von.
- Kidd, F., West, C., and Kidd, M. N., gas storage of fruit, B., 425.
- Kidd, M. N. See Kidd, F.
- Kidokoro, T., and Kamiguchi, Y., determination of sulphur in coal, B., 719.
- Kiech, V. C. See Bodansky, M.
- Kieferle, P., and Zeiler, K., antiscorbutic activity of milk from cows receiving silage, its biological value in comparison with milk produced by feeding dry fodder and brewers' grains, and its suitability for children, B., 202.
- Kiehl, S. J., and Coats, H. P., phosphates. V. Hydration of sodium monometaphosphate in alkaline solution at 75°, A., 1042.
- Kiehl, S. J., and Hansen, W. C., effect of hydrogen-ion concentration on the rate of hydration of sodium pyrophosphate, A., 26.
- Kiehl, S. J., and Hill, T. M., phosphates. III. Ammonium monometaphosphate, A., 220.
- Kiehl, S. J., and Wallace, G. H., phosphates. IV. Dissociation pressures of monopotassium and monosodium orthophosphates and of dipotassium and disodium dihydrogen pyrophosphates, A., 312.
- Kiehl, S. J. See also Beans, H. T.
- Kielman, J. C., forging by the upset process, B., 77.
- Kiemstedt, H., removal of sulphur from commercial benzols, B., 932.
- Kierzek, L., constitution of Grignard's organo-magnesium derivatives. I. Action of water and hydrogen sulphide on asymmetric organo-magnesium derivatives, A., 1176.
- Kierzek, L. See also Korczyński, A.
- Kiesel, A., protoplasm. II. Chemical constituents of the plasmodium of *Lycogala epidendron* and alterations during spore differentiation, A., 382.
- protoplasm. III. Proteins of the plasmodium of *Fuligo* *varians*, A., 799.
- Kiesel, A., and Semiganovsky, N., determination of cellulose by saccharification, B., 405.
- Kiesgen, J. See Tillmans, J.
- Kieess, C. C., wave-length measurements in the arc and spark spectra of zirconium, A., 802.
- Kignell, E. H., and Kignell, E. P., regenerative heat-exchanging apparatus, (P.), B., 95.
- Kignell, E. P. See Kignell, E. H.
- Kikawa, K., adsorption of pepsin, A., 174.
- Kikuchi, S., mode of disintegration of radium-*D*, -*E*, and -*F*, A., 1003.
- Kilian, C., production of pig iron from fine ore by smelting in a blast furnace, (P.), B., 783.
- Kiliani, H., pentose of digitonin, A., 44.
- Killeffer, D. H., furfuraldehyde in industry, B., 92.
- butyl alcohol and acetone from corn [maize], B., 152.
- solid carbon dioxide as a commercial refrigerant, B., 250.
- cheap ethylene dichloride, B., 540.
- chromium plating, B., 605.
- ammonia as a source of nitrogen oxides for chamber acid plants, B., 876.
- Killian, J. A. See Katayama, I.
- Kilp, W. See Dehnicke, J.
- Kilpatrick, M., jun. See Bergstein, M.
- Kilpatrick, M. L., Reiff, O. M., and Rice, F. O., preparation of hydrogen peroxide, A., 120.
- Kilpatrick, M. L. See also Rice, F. O.
- Kimura, K., X-ray analysis of hafnium, A., 1013.
- Kimura, K. See also Aoyama, S.
- Kimura, M., reversibility of spectral lines, A., 601.
- line absorption of the non-luminous vapours of selenium and tellurium, A., 601.

- Kimura, *M.*, number of detachable electrons in various elements, A., 603.
- Kimura, *S.*, and Isawa, *Z.*, electrical properties of copper-nickel resistance alloys, A., 104.
- Kind, *W.*, and Auerbach, *J.*, testing of wetting-out agents, B., 248.
- Kindler, *K.*, reactivity and stability of linking of organic radicals. I. Addition of hydrogen sulphide to nitriles, and hydrolysis of esters, A., 55.
- Kindler, *K.* [with Burghard, *F.*, Körding, *P.*, Giese, *O.*, Hesse, *F.*, Finndorff, *F.*, and Christlieb, *H.*], preparation of pharmacologically valuable amines, A., 759.
- Kindler, *K.* [with Treu, *A.*, and Fürst, *W.*], reactivity and stability of linking of organic radicals. II. Hydrolysis of esters, addition of hydrogen sulphide to nitriles, and conversion of alkyl chlorides into ethers, A., 338.
- King, *A. A.* See Threlfall, *R.*
- King, *A. S.*, and Carter, *E.*, electric furnace spectra of yttrium, zirconium, and lanthanum, A., 911.
- King, *A. T.*, unscaled fibres, A., 477.
- sulphites of azo-compounds, A., 1180.
- use of indicator-dyed wool to control textile operations, B., 873.
- some chemical aspects of wool research, B., 932.
- King, *C. G.*, and Etzel, *G.*, copper as an industrial contaminant in foodstuffs, B., 973.
- King, *C. V.* See Brönsted, *J. N.*, and La Mer, *V. K.*
- King, *E. J.*, reaction of lactones and of furan derivatives with aromatic hydrocarbons and aluminium chloride, A., 358.
- King, *F. E.*, and Partington, *J. R.*, effect of one salt on the solubility of another in ethyl alcohol solution. I. and II., A., 1020.
- King, *G.*, levulose tolerance test for hepatic efficiency, A., 1217.
- King, *H.*, trypanocidal action and chemical constitution. VI. Amphoterie α -carbamidoarylarsonic acids, A., 684.
- King, *H.* See also Anslow, *W. K.*, and Balaban, *I. E.*
- King, *H. S.*, attempts to separate isotopes of mercury by chemical means, A., 709.
- King, *J. A.* See Hartmann, *M. L.*
- King, *J. F.*, dressing of textile materials, (P.), B., 810.
- King, *J. F.*, and Howard, *F. H.*, electrometric determination of iron in blood, A., 1214.
- King, *J. F.*, and Washburne, *R. N.*, electrometric determination of small amounts of ferric iron, A., 24.
- King, *J. G.*, production of liquid fuels from coal, B., 641.
- King, *J. G.*, and Willgress, *R. E.*, primary decomposition of coal. I. Temperature of initial decomposition, B., 434.
- King, *J. G.* See also Sinnatt, *F. S.*
- King, *J. T.*, effect of air on cupellation losses [of silver], B., 112.
- King, *P. E.*, uses of artificial silk in the textile industries, B., 599.
- King, *P. E.* See also Farrar, *H. E.*, and Hirst, *H. R.*
- King, *R. M.* See Watts, *A. S.*
- King, *W. G., jun.* See Mantell, *C. L.*
- King, *W. R.* See Parr, *S. W.*
- King, Taudevin, & Gregson, Ltd., and Nelson, *C.*, method of heating furnaces, (P.), B., 239.
- Kingsbury, *F. B.*, effect of dextrose on condensation of formaldehyde. I. Determination of urinary sugar, A., 1172.
- Kinkade, *W. D.*, and Baugh, *C. J.*, process of treating acid sludge to provide a fuel, (P.), B., 323.
- Kinnear, *H. B.*, alloy steels, (P.), B., 46.
- Kinnear, *H. B.*, and Marion Steam Shovel Co., alloy steel, (P.), B., 81*.
- Kinnersley, *H. W.*, and Peters, *R. A.*, antineuritic yeast concentrates. II. Use of norite charcoal in the concentration of torulin, A., 904.
- Kinney, *C. R.*, and Harwood, *H. J.*, structure of furazan oxides, A., 367.
- Kinney, *S. P.*, composition of materials from various elevations in an iron blast-furnace, B., 412.
- Kinney, *S. P.*, and Guernsey, *E. W.*, occurrence, distribution, and significance of alkali cyanides in the iron blast-furnace, B., 413.
- Kinney, *S. P.* See also Joseph, *T. L.*
- Kinoshita, *K.*, growth of moulds on cobaltamine salts, A., 906.
- Kinsel, *A.* See Litharge Recovery Corporation.
- Kinzie, *C. J.*, and Titanium Alloy Manufacturing Co., manufacture of zirconium compounds, (P.), B., 168, 252.
- manufacture of a zirconium oxide-silica composite, (P.), B., 531.
- Kippe, *O.*, process of conglomerating fine ores, flue dust, roasted pyrites, small coke, etc., (P.), B., 195*.
- Kipper, *H. B.*, composition for use in making sulphate or kraft pulp, (P.), B., 519.
- Kipping, *F. B.*, and Mann, *F. G.*, derivative of $\alpha\alpha'$ -tri-amino-trimethylamine, A., 343.
- Kipping, *F. S.*, organic derivatives of silicon. XXXII. Carbon-silicon binding, A., 267.
- Kiprianov, *A.*, action of α -oxides on the esters of amino-acids. II., A., 343.
- Kirchheisen, *P.*, production of pure carbon dioxide, together with valuable by-products, (P.), B., 815.
- Kirchhof, *A.*, treating aluminium to facilitate its welding and soldering, (P.), B., 47, 881*.
- Kirchhof, *F.*, action of ultra-violet light on rubber solutions in the presence of yellow phosphorus, B., 148.
- ultramicroscopic studies on theory of vulcanisation by H. Dannenberg; new effect of light in the system rubber-sulphur by H. Pohle, B., 635.
- oxidation of rubber from the scientific and technical point of view, B., 789.
- Kirchhof, *H.* See Schenck, *M.*
- Kirchhoff, *R.* See I. G. Farbenind. A.-G.
- Kirchner, *F.*, directional distribution of electrons set free by polarised X-rays, A., 84.
- directional distribution of electrons liberated by X-rays, A., 85.
- Compton effect with bound electrons; observations with cloud-chamber photographs in argon, A., 912.
- Kirchner, *J.*, lime-kiln operation in the ammonia-soda process, B., 72.
- Kirchner, *W.* See Chem. Fabr. Grünau, Landshoff, & Meyer A.-G.
- Kirejev, *V.*, degree of polymerisation of vapours at the b. p., A., 101.
- Van der Waals' equation at the critical point, A., 404.
- cohesion. I. and II., A., 626*.
- Kirk, *R. E.*, manufacture of Portland cement from marl, B., 13.
- Kirk, *R. H.* See Martinez, *H.*
- Kirke, *P. St. G.*, process and apparatus for preserving or improving foodstuffs, (P.), B., 265.
- Kirkham, *A.* See Spence, *P.*, & Sons, Ltd.
- Kirkmann, *A.*, α -bromo-aldehydes, A., 751.
- Kirmreuther, *H.*, and Purrmann, *L.*, explosion risks in the use of liquid chlorine for bleach liquor, B., 936.
- Kirpal, *A.*, opianyl chloride, A., 360.
- Kirpal, *A.*, and Kunze, *H.*, chloride and ester of 3-benzoyl-pyridine-2-carboxylic acid, A., 255.
- Kirpal, *A.*, and Reiter, *E.*, derivatives and oxidation products of 2-aminopyridine, A., 466.
- Kirmann, *A.*, synthesis of α -bromoaldehydes, A., 340.
- preparation of substituted vinyl bromides, A., 442.
- Kirsanov, *A. V.*, and Tschitschabin, *A. E.*, 2:5-diaminopyridine and 2:3-diaminopyridine, A., 466.
- Kirsch, *G.*, and Pettersson, *H.*, atomic disintegration by α -particles, A., 493.
- Kirsch, *G. H.* See Keenan, *C. J.*
- Kirsch, *W.* See Völtz, *W.*
- Kirschbraun, *L.*, apparatus for making emulsions, (P.), B., 64.
- making waterproof products, (P.), B., 71.
- hydrocarbon fuel; combustible fuel [for internal-combustion engines], (P.), B., 274.
- production of bituminous emulsions, (P.), B., 301.
- production of [bitumen] emulsion, (P.), B., 301.
- preparation of a bituminous composition, (P.), B., 356.
- manufacture of a waterproof [paper] composition, (P.), B., 407.
- Kirschfeld, *L.* See Huber, *H.*
- Kirsebom, *G. N.*, and United States Smelting, Refining, & Mining Co., controlling the evolution of elemental sulphur [from sulphide ores], (P.), B., 784.
- Kisch, *B.*, differential analysis of heart poisons. V. Action of magnesium, strontium, and barium chlorides on stimulus formation in the heart of cold-blooded animals, A., 900.
- Kiss, *A. von*, catalysis in homogeneous gas reactions, A., 1038.
- Kiss, *A. von*, and Bruckner, *V.*, neutral salt effect in ionic reactions. I. Specific ionic effects, A., 945.
- Kiss, *A. von*, and Lederer, *E.*, mechanism of the catalytic decomposition of hydrogen peroxide by metallic ions, A., 837.
- neutral salt effect in decomposition of hydrogen peroxide catalysed by iron ions, A., 1150.

- Kiss, *A. von*, and Zombory, *L. von*, catalysis in the reaction between persulphate and iodide ions, A., 632.
- Kiss, *D.* See Zemplén, *G.*
- Kisse, *K.*, process and apparatus for spraying or projecting viscous, liquid, or granular material, (P.), B., 319.
- Kisselev, *A.* See Ipatiev, *V. N.*
- Kisseleva, *V. B.* See Pamfilov, *A. V.*
- Kissock, *A.*, production of molybdates, (P.), B., 815.
- Kistiakovski, *G. B.*, activation of gases by adsorption, A., 314.
- action of light on the ferrous-ferri: iodine-iodide equilibrium, A., 528.
- action of light on chlorine, A., 1040.
- Kistiakovski, *G. B.*, Flösdorf, *B. W.*, and Taylor, *H. S.*, heats of adsorption on poisoned and heat-treated catalysts, A., 1021.
- Kistiakovski, *G. B.* See also Taylor, *H. S.*
- Kistiakovski, *W.*, molecular constitution of liquids, A., 714.
- Kita, *G.*, Nakashima, *T.*, and Sakurada, *I.*, saponification of cellulose acetate, A., 526.
- cellulose esters of aromatic sulphonic acids, B., 163.
- Kita, *G.*, Tomihisa, *R.*, and Sakurada, *K.*, viscose. VIII., B., 103.
- Kita, *G.*, Tomihisa, *R.*, Sakurada, *K.*, and Kono, *H.*, viscose. X., B., 387.
- Kita, *G.*, Tomihisa, *R.*, Sakurada, *K.*, Nakamura, *Y.*, and Kono, *H.*, viscose. XI., B., 675.
- Kitano, *T.* See Chikano, *M.*
- Kitasato, *T.* See Neuberg, *C.*
- Kitasato, *Z.*, *isoquinoline* alkaloids. I. Constitution of nandinine. II. Constitution of domesticine; *isodomesticine*. III. Constitution of coptisine. IV. *Worcinine*. V. Synthesis of some new *isoquinoline* alkaloids. VI. Spectrographic researches, A., 1094.
- Kitchen, *J. M. W.*, fuels, (P.), B., 162.
- Kittl, *T.* See Kemp, *P.*
- Kjellberg, *B. per F.*, recovering vanadium compounds from iron ores containing vanadium and titanium, (P.), B., 43.
- Kjelsberg, *F.* See Kaufmann, *A.*
- Klages, *A.*, production of nuclear substituted aromatic cyanomercure compounds, (P.), B., 398*.
- poisoning action of mercury alkyls, B., 732.
- Klages, *A.* [with Sturm, *E.*, and Weniger, *J.*], synthetic bitter substances of the saccharin-arylsulphonylimide group, B., 616.
- Klages, *A.* See also Saccharin-Fabr. Akt.-Ges.
- Klaiber, *F.*, Hall effect for bismuth in weak magnetic fields, A., 614.
- Klamer, *C. E.*, separation point of rape oil and aniline, B., 946.
- Klapholz, *R.*, and Zellner, *J.*, comparative plant chemistry. XIV. *Oenothera biennis*, A., 283.
- Klapholz, *R.* See also Zellner, *J.*
- Klar, *L.*, ketone-aldehyde mutase in wheat, rye, and soya beans, A., 907.
- Klas, *H.* See Schenck, *R.*
- Klatte, *F.* See I. G. Farbenind. A.-G.
- Klatte, *K. A.* See Biltz, *W.*
- Klaus, *K.*, chemistry of menstruation, A., 694.
- Klaversteijn, *W. B.*, extraction of tartaric [acid] salts [from wine-lees, etc.], (P.), B., 152.
- Kleeman, *R. D.*, absolute zero of the externally controllable entropy and internal energy of a substance and a mixture, A., 520.
- properties of substances and mixtures in the condensed state at the absolute zero of temperature, A., 936.
- properties at the absolute zero of temperature of the quantities associated with the reversible mixing of substances, A., 1142.
- Klein, *A. B.* See Twyman, *F.*
- Klein, *A. C.*, and Stone & Webster, Inc., manufacture of carburetted water-gas, (P.), B., 515.
- Klein, *C. A.*, and Brown, *R. S.*, glass, sand, or flint paper, emery cloth, or like abrasive, (P.), B., 44.
- utilisation of waste acid liquors in chemical processes, (P.), B., 876.
- treatment of ores, etc., containing titanium and iron, (P.), B., 942.
- manufacture of composite titanium pigments, (P.), B., 947.
- Klein, *E. H.* See Peters, *M. F.*
- Klein, *F. G. C.*, depolymerisation and hydrolysis of cellulose, A., 513.
- Klein, *L.* See Brady, *O. L.*, and Collie, *J. N.*
- Klein, *P.* See Anode Rubber Co.
- Klein, *R.* See I. G. Farbenind. A.-G.
- Klein, *W.*, [centrifugal] separation of liquids from solids, (P.), B., 767.
- Klein, *Wilhelm.* See Helferich, *B.*
- Kleinewefers, *W.*, secondary arc spectrum of iron from 5167 to 6678 Å., A., 491.
- Kleinmann, *F.*, and Büttner-Werke Akt.-Ges., treatment and digestion of natural aluminium hydroxides, (P.), B., 330.
- Kleinmann, *F.* See also Büttner-Werke Akt.-Ges.
- Kleinmann, *H.*, nephelometric apparatus, A., 335.
- micro-colorimeter, A., 370.
- micro-colorimetric determination of nitrogen; total and residual nitrogen of blood-drops, A., 370.
- Kleinmann, *H.*, and Pangritz, *F.*, nephelometric determination of small amounts of arsenic. I. Turbidities produced by a new reagent. II. Determination of arsenic in any material, A., 800.
- Kleinmann, *H.* See also Rona, *P.*
- Kleinschmidt, *E.*, briquetting coal and coke, (P.), B., 466.
- Klemenc, *A.*, and Hayek, *E.*, nitrometer for small volumes of gas, A., 952.
- Klemenc, *A.*, and Herzog, *M.*, dissociation constant of carbonic acid, A., 204.
- Klement, *R.*, molecular volumes of the halopentamine-cobaltic and -chromic halides, A., 294.
- molecular volumes of simple and complex platinum halides, A., 920.
- Klemm, *L.* See Klemm, *W.*
- Klemm, *W.*, molecular and atomic volumes. XV. Indium halides. III. Densities of solid indium trihalides, A., 812.
- systematic doctrine of affinity. XL. Indium halides. IV. Ammines of indium halides, A., 831.
- Klemm, *W.*, and Bräutigam, *M.*, systematic doctrine of affinity. XXXIX. Indium halides. II. Heats of formation of indium chlorides, A., 830.
- Klemm, *W.*, and Klemm, *L.*, molecular and atomic volumes. XIV. Molecular volumes of the methyluric acids, A., 498.
- Klemm, *W.*, and Rockstroh, *J.*, samarium sulphide, A., 842.
- Klempt, *W.* See Gluud, *W.*
- Klenk, *E.*, cerebrosides of brain, A., 691.
- nervonic acid, A., 691.
- Kletzien, *S. W.* See Hart, *E. B.*
- Klever, *E.* See Paneth, *F.*
- Kleyer, *G.*, determination of acetone in urine, A., 1105.
- Klimmer, *M.* See Beythien, *A.*
- Kline, *L.* See Samec, *M.*
- Kling, *A.*, and Florentin, *D.*, transformation of phenols into hydrocarbons by hydrogen under pressure in presence of catalysts, A., 452, 1177.
- hydrogenation of naphthalene and anthracene at high temperatures and under high pressures in presence of non-hydrogenating catalysts, A., 453.
- preparation of light hydrocarbons from heavy hydrocarbons or cyclic derivatives, (P.), B., 548, 696*.
- Kling, *A.* See also Florentin, *D.*
- Klingenstein, *T.* See Wilke-Dörfurt, *E.*
- Klingler, *A.* See Zinke, *A.*
- Klingstedt, *F. W.*, and Sundstrom, *E.*, detection and determination of thymol, A., 1065.
- Klinke, *K.*, buffer action. VI. Phase buffers, A., 1029.
- Klinkhardt, *H.*, measurement of true specific heats at high temperatures, A., 100.
- true specific heats at high temperatures by heating with thermionic electrons, A., 1018.
- Klisiecki, *A.*, Mozolowski, *W.*, and Taubenhaus, *M.*, ammonia content and formation in blood. VII. Ammonia formation in physiologically stagnant blood, A., 369.
- Klopsteg, *P. E.*, correction for heat exchanges between a calorimeter and its surroundings, A., 12.
- Klosky, *S.*, Woo, *L. P. L.*, and Flanagan, *R. J.*, vapour-pressure curve of benzoic acid, A., 615.
- Kloss, *J.*, and Seifert, *W.*, reactions of gallic acid and its presence in fruit and grape wines, B., 612.
- Klostermann, *M.*, detection of small quantities of lead in organs by chemical and spectrographic means, A., 376.
- Klostermann, *M.*, and Qnast, *H.*, pine-needle extracts, B., 236.
- Klüber, *H. von*, absorption lines of the solar spectrum, A., 909.
- Klüsener, *O.*, Poisson's theorem and Hugoniot's equation, A., 819.
- Klug, *P.* See Cornec, *E.*

- Kluge, *J.*, influence of the gas content on the velocity distribution of photo-electrons from platinum, aluminium, and palladium, A., 287.
- Klumpp, *E.*, oil absorption of lithopone, B., 340.
pigment and oil, B., 609.
- Kluyver, *A. J.*, and Struyk, *A. P.*, so-called co-enzyme of alcoholic fermentation, A., 1221.
- Knapp, *A. W.*, Moss, *J. E.*, and Melley, *J.*, cacao butter substitutes and their detection, B., 762.
- Knapp, *A. W.* See also Moss, *J. E.*
- Knapp, *E.* See Grabfield, *G. P.*
- Knapp, *O.*, durability of lead glasses and the Peddle generalisation, B., 12.
- Knapp, *W.* See Weiss, *R.*
- Knauer, *F.*, and Stern, *O.*, method of molecular rays, A., 92.
determination of small magnetic moments of molecules, A., 92.
- Knauss, *C. A.* See Long, *J. S.*
- Knaysi, *G.*, factors, other than bacteria, which influence the body of buttermilk, B., 712.
- Knehe, *E.* See Bergmann, *M.*
- Knie, *K. M.* See Zellner, *J.*
- Knieke, *L.* See Bredt-Savelsberg, *M.*
- Knipkamp, *H.*, applicability of discharge tubes containing noble gases as photometers, A., 99.
- Kniga, *A. G.* See Dumanski, *A. F.*
- Knight, *B. C. J. G.* See Garner, *W. E.*
- Knight, *N.* See Simpson, *V.*
- Knight, *R. W.*, and Hinshelwood, *C. N.*, partition of hydrogen chloride between water and benzene, A., 304.
- Knipe, *A. C.*, manufacture of cement concrete and apparatus for use therewith, (P.), B., 334.
- Knipping, *H. W.*, and Ponndorf, *W.*, reversible interchange between secondary alcohols and ketones of their degree of oxidation, A., 70.
- Knipschild, *F. F.*, dryer or dehydrating plant, (P.), B., 896.
- Kniskern, *W. H.*, and Atmospheric Nitrogen Corporation, treatment of gas containing carbon monoxide, (P.), B., 403.
- Knoll & Co., and Schmidt, *K. F.*, methods of producing amines, the substitution products thereof, nitriles and tetrazoles, (P.), B., 172.
- Knoll & Co. See also Schmidt, *K. F.*
- Knollman, *H. J.*, use of super-refractories as chequer brickwork in oil-gas manufacture, B., 702.
refractories for oil-gas manufacture, B., 750.
- Knopf, *C. L.* See Larson, *C. M.*
- Knopf, *E.* See Freudenberg, *K.*
- Knopp, *W.* See I. G. Farbenind. A.-G.
- Knorr, *A.* See I. G. Farbenind. A.-G.
- Know Mill Printing Co., Ltd., and Mort, *T. L.*, method and means for determining or comparing the viscosities of fluids, (P.), B., 96.
- Knowles, *A. E.*, electrolytic apparatus, (P.), B., 81.
electrolytic cell [for electrolysis of water], (P.), B., 944.
- Knowles, *H. I.*, bone black [animal charcoal], B., 638.
- Knox, *J.* See Dwight & Lloyd Metallurgical Co.
- Krupp, *E.* See Rupe, *H.*
- Kobayashi, *H.*, glycerophosphatase, A., 377.
- Kobayashi, *K.*, and Yamamoto, *K.*, physico-chemical properties of Japanese acid clay. I. Ultramicroscopic observations, A., 824.
- Kobel, *M.* See Neuberg, *C.*
- Kober, *P. A.*, production of dialysing and pervaporating membranes, (P.), B., 138.
manufacture of sodium salt of 3:3'-diamino-4:4'-dihydroxy-arsenobenzene, (P.), B., 398.
- Kober, *S.* See Neumann, *B.*
- Kobornik, *J. E.*, and Newton Process Manufacturing Co., absorption tower for hydrocarbons, (P.), B., 181.
- Kobiolke, *A. M.*, apparatus for drying and seasoning timber, (P.), B., 412.
- Kobori, *B.*, carbohydrate metabolism. II. Influence of alkali phosphates and some other electrolytes on carbohydrate metabolism, A., 274.
- Kobori, *B.* See also Abelin, *I.*
- Kobori, *K.*, and Kanegafuchi Bosoki Kabushiki Kwaisha, method of cocoon-storage by cooling and drying, (P.), B., 71*.
- Kobosev, *N.* See Spitalsky, *E.*
- Koch, determination of tin and lead in solder and of tungsten in ferrotungsten by calculations on the Archimedean principle, B., 143.
- Koch, *C. E.*, has the actual reaction of the urine any influence on the extent of synthesis of hippuric acid? A., 375.
- Koch, *E.* See Eibner, *A.*
- Koch, *F. K. V.*, molecular conductivity of cadmium iodide in acetonitrile, A., 420.
- Koch, *G. T.*, and Burrell, *G. A.*, manufacture of amyl acetate from natural gasoline, B., 377.
- Koch, *L.* See Masing, *G.*
- Koch, *W.* See Bosse, *J. von.*
- Kochmann, *W.*, universal [gas] wash-bottle, A., 128.
- Kocwa, *A.* See Dziewoński, *K.*
- Kodak, Ltd., Sheppard, *S. E.*, and Beal, *C. L.*, electrical deposition of organic materials [e.g., rubber, cellulose, etc.], (P.), B., 850*.
- Kodak, Ltd., Sheppard, *S. E.*, and Eberlin, *L. W.*, [electrolytic] method and means for coating materials [e.g., metal wire] with rubber, (P.), B., 392*.
- Kodak, Ltd. See also Sheppard, *S. E.*
- Kodama, *K.*, preparation and physico-chemical properties of sericin, A., 65.
- Koefoed, *R.*, and Haugaard, *G.*, analytical investigation of water samples from the Dead Sea, A., 329.
- Koefoed, Hauberg, Marstrand, & Helweg, Aktieselskabet Titan. See Thomsen, *T. C.*
- Köhler, *O.* See I. G. Farbenind. A.-G.
- Köhler, *R.* See Gutbier, *A.*
- Koehler, *S.*, phosphorus compounds in plants. I. Solubility and distribution of phosphorus compounds in seeds, A., 798.
- Koehler, *W.*, forming metal compounds and mixtures involving phosphorus, (P.), B., 11, 815*.
- Köhn, *M.*, mechanical analysis of soils. I., B., 855.
- Kölbl, *L.*, occurrence and origin of kaolin in the Lower Austrian Forests, A., 643.
- Koelichen, *K.*, manufacture of Glauber's salt and of anhydrous sodium sulphate from residues left after the concentration of potassium salts, B., 186.
preparation of potassium sulphate, B., 477.
volume changes on cooling and crystallising magnesium chloride liquors saturated with potassium and sodium chlorides, B., 477.
- Köllehen, *K.*, and Althammer, *W.*, manufacture of Glauber's salt, B., 479.
preparation of astrakhanite, B., 479.
- Köllehen, *K.*, and Przibylla, *C.*, the potassium-magnesium sulphate process, B., 478.
- Koelliker, *G. P.* See Keeler, *L. J.*
- Köln-Rottweil Akt.-Ges., production of fibres, silk, hair, films, etc. [from viscose], (P.), B., 387, 873*.
- König, *F.*, treatment of wooden casings for accumulators, (P.), B., 660.
- König, *G.*, apparatus for the purification of gases, (P.), B., 512.
- König, *J.* See Manhot, *W.*
- König, *Joseph*, volatile substances of foods, B., 123.
decomposition of farmyard manure in soil and its utilisation by plants, B., 198.
- König, *Joseph*, and Schreiber, *W.*, volatile constituents of food-stuffs, B., 344.
volatile materials of food, B., 568.
- Koenigs, *E.*, and Fulde, *A.*, 2-methyl-8 γ -pyrindole, A., 1205.
- Koenigs, *E.*, and Kantrowitz, *H.*, new "thiopyrindigotin" and a pyridoxyl, A., 1207.
- Koenigsberger, *J.*, influence of neighbouring metal walls on the loss of charge of canal rays, A., 806.
- Koenigsberger, *J.* See also Conrad, *R.*
- Königsberger Zellstoff-Fabrik & Chemische-Werke Koholyt Akt.-Ges., and Schlumberger, *E.*, decreasing the destruction of graphite and carbon electrodes used in the electrolysis of chlorides, (P.), B., 450, 659.
- Könitzer, *H.* See Lindemann, *H.*
- Koepfli, *J. B.* See Haworth, *R. D.*
- Koepp & Co., R., Bredig, *G.*, and Elöd, *E.*, production of hydrocyanic acid, (P.), B., 522*.
- Koepp & Co., R., and Elöd, *E.*, preparation of formic acid derivatives, (P.), B., 669.
- Koepp & Co., R. See also Bredig, *G.*
- Köppen, *W.*, and Pfeiffer, *C.*, ball or tube mill, (P.), B., 767.
- Körber, *F.*, faults occurring during the working of mild steel and means of avoiding them, B., 655.
- Körber, *F.*, Wever, *F.*, and Neuhaus, *H.*, use of high-frequency induction furnaces in the production of special steels, B., 14.
- Körber, *G.*, annealing furnace, (P.), B., 583.
- Körding, *P.* See Kindler, *K.*
- Köster, *E.* See I. G. Farbenind. A.-G.

- Köster, *F.*, annealing and hardening steel wires and bands, (P.), B., 369.
- Köster, *H.* See Bergmann, *M.*
- Köster, *W.*, and Müller, *F.*, solubility of silicon in aluminium, B., 282.
- Koestler, *G.*, physico-chemical basis of the density of milk, B., 91.
- Köszei, *D.*, volumetric determination of copper, A., 332.
- titration of hypophosphoric acid and its salts by means of permanganate, A., 436.
- Köszei, *D.*, and Gerö, *S.*, rapid method for the evaluation of Schweinfürth green, B., 683.
- Koether, *F.*, ionic mobilities for ion rays, A., 397.
- Koets, *P.* See Arkel, *A. E. van*, and De Boer, *J. H.*
- Kötschau, *K.* See Simon, *A.*
- Kötteritzsch, *E.*, manufacture of chill castings, (P.), B., 225.
- Köttgen, *P.*, pipette method for mechanical analysis of soils, its theoretical basis, and suggestions for a simplified apparatus, B., 729.
- Kogerman, *P. N.*, Estonian shale oil. I. Isolation and properties of phenols, B., 354.
- Estonian oil shale: origin of oil shales, B., 865.
- Kogerman, *P. N.*, and Kranig, *J.*, physical constants of some alkyl carbonates, A., 302.
- Kohen, *W.*, treatment of mortar-forming materials and mortar, (P.), B., 190.
- Kohl, *H.*, modulus of rupture of dried clays as a measure of plasticity, B., 76.
- Kohlenscheidungs-Ges.m.b.H., dust removal from carbonisation gases containing tar vapours, (P.), B., 673.
- Kohlenveredlung Ges.m.b.H., rich gases from fuels, (P.), B., 210.
- cracking or fixing the illuminating constituents of coal gas, (P.), B., 469*.
- low-temperature distillation of bituminous substances, (P.), B., 721.
- Kohlenveredlung Ges.m.b.H., and Geissen, *C.*, distilling or coking bituminous substances, (P.), B., 99.
- Kohler, *E. P.*, and Goodwin, *R. C.*, [so-called] isooxazoline oxides, A., 262.
- Kohler, *M.* See Kaufmann, *W.*
- Kohlrausch, *K. W. F.*, anomalies associated with the γ -radiation of radium-C, A., 182.
- Kohlschütter, *H. W.*, chemistry of solid substances; forms of mercuric iodide and sulphur, A., 815.
- Kohlschütter, *V.*, aerosols, A., 823.
- topochemical reactions, A., 948.
- electrolytic crystallisation processes. I., A., 1015.
- Kohlschütter, *V.*, and Good, *A.*, electrolytic crystallisation processes. II. Aggregation forms of incoherent metal deposits, A., 1015.
- Kohlschütter, *V.*, and Jakober, *F.*, electrolytic crystallisation processes. III. Formation and properties of coherent metallic films, A., 1015.
- Kohlschütter, *V.* See also Goldschmidt Akt.-Ges., *T.*
- Kohman, *E. F.*, and Sanborn, *N. H.*, tin-iron alloy in tin-plate, B., 582.
- Kohman, *G. T.* See Lowry, *H. H.*
- Kohman, *H. A.*, manufacture of bread, (P.), B., 376.
- Kohmoto, *T.*, and Sakaguchi, *S.*, determination of cellulose in human faeces and the digestion of food cellulose, A., 169.
- Kohn, *H.*, and Jakob, *H.*, intensity-ratio for the doublets in the principal series of the alkali metals, A., 178.
- Kohn, *M.*, and Dömötör, *G.*, bromophenols. XX. Behaviour of pentahalogenophenols towards aluminium chloride in benzene, A., 51.
- Kohn, *M.*, and Karlin, *H.*, bromophenols. XXVIII. Dibromo-*o*-anisidine and tribromo-*o*-anisidine, A., 1182.
- bromophenols. XXIX. Molecular wandering in the preparation of tribromo-*o*-anisidine from *o*-nitroanisole, A., 1182.
- Kohn, *M.*, and Pfeifer, *J.*, bromophenols. XXIV. Dehalogenation of bromophenols. XXV. Halogenation of chlorophenols, A., 966.
- Kohn, *M.*, and Rabinovitch, *F.*, bromophenols. XXVI. 2:4:6-Trichloro-3-bromophenol and 2-chloro-4:6-dibromophenol. XXVII. Formation of dibromo-*o*-cresol from tetra-bromo-*o*-cresol by the action of aluminium chloride and benzene, A., 967.
- Kohn, *M.*, and Sussmann, *J. J.*, bromophenols. XXII. Halogenated phenols from *o*-chlorophenol. XXIII. Diphenyl ether of 2:5-dihydroxybenzoquinone and allied compounds, A., 966.
- Kohn, *M.*, and Zandman, *A.*, bromophenols. XXI. New halogenated phenols from *m*-chlorophenol, A., 52.
- Kohn-Abrest, *E.*, determination on the spot of traces of nitrogen peroxide in air, B., 251.
- Kohn-Abrest, *E.*, and Kavakibi, *S.*, nitrates in biochemistry and toxicology, A., 482.
- Kohnstamm & Co., Inc., *H.*, degreasing textile material, (P.), B., 873*.
- Kohout, *J. F.*, nitrogen as a catalyst in the determination of sulphur in coal by the bomb-washing method, B., 802.
- Kohout, *M.* See Schulz, *F.*
- Kokatur, *V. R.*, hydrolysis or saponification of glycerides or other organic esters, (P.), B., 755.
- Koksofenbau & Gasverwertung Akt.-Ges., heating walls for coke ovens, (P.), B., 722.
- Kolbach, *F.* See Elöd, *E.*
- Kolbach, *P.* See Windisch, *W.*
- Koley, *N.* See Balarev, *D.*
- Kolkmeijer, *N. H.* See Heringa, *G. C.*
- Kollath, *W.* See Suhrmann, *R.*
- Koller, *G.*, synthesis of coniine, A., 163.
- synthesis of *p*-methoxyephedrine and *p*-hydroxy-*m*-methoxyephedrine, A., 240.
- synthesis of derivatives of 1:8-naphthyridine, A., 367.
- synthesis of methyl 2:4-dihydroxyquinoline-3-carboxylate, A., 674.
- 1:8-naphthyridine and its derivatives, A., 886.
- dimeride of 4:6-dichloro-5-cyano-2-styrylpyridine, A., 1085.
- 1:8-naphthyridine, A., 1089.
- Koller, *K.*, gasification of caking coals in a gas producer, (P.), B., 694.
- Kollman, *T.* See Waldschmidt-Leitz, *E.*
- Kollmann, *K.* See Tammann, *G.*
- Kollo, (*Mrs.*) *C.*, and Angelescu, *B. N.*, volumetric determination of hexamethylenetetramine, A., 780.
- Kolodziejska, *S.*, and Funk, *C.*, trypsin, A., 699.
- Kolthoff, *I. M.*, hydration of dissolved sucrose and the expression of the concentration in measuring the activity of ions, A., 21.
- potassium di-iodate as a standard in alkalimetric and iodometric titrations, A., 35.
- micro-titration of iodides with iodate and determination of the iodide and ferrous iron content of syrup of ferrous iodide, A., 125.
- oxidation-reduction potentials, A., 127.
- influence of chlorides on Denigès' reaction for citric acid, A., 166.
- volatility of borax, A., 325.
- argentometric determination of iodide in presence of chloride with the help of the absorption indicators of Fajans, A., 435.
- specific reagent for sodium, A., 436.
- direct titration of zinc with potassium ferrocyanide, using diphenylamine or diphenylbenzidine as indicator, A., 535.
- methoxytriphenylcarbinols as one-colour indicators, A., 637.
- colour reaction for magnesium, and colorimetric determination of traces of magnesium, A., 639.
- dissociation constants of hypophosphorous, phosphorous, and phosphoric acids, A., 728.
- argentometric titration of chlorides and iodides using adsorption indicators. III., A., 744.
- colorimetric determination of traces of magnesium, A., 847.
- displacement of the chemical equilibrium at an interface, A., 1022.
- sensitive reaction for aluminium and colorimetric determination of this element, A., 1047.
- electrolyte adsorption on pure ash-free charcoal, A., 1133.
- use of mixed indicators in acidimetry and alkalimetry, A., 1159.
- determination of the basic constant of morphine and its application in the titration of morphine, B., 266.
- Kolthoff, *I. M.*, and Berk, *L. H. van*, comparison of the accuracy of the titration of halides and thiocyanates by Fajans' method, the usual methods, and the potentiometric method, A., 434.
- use of yellow mercuric oxide and of metallic mercury as standards in volumetric analysis, A., 845.
- Kolthoff, *I. M.*, and Bosch, *W.*, employment of the quinhydrone electrode in solutions of low buffer capacity, A., 221.
- abnormal change of pH of mixtures of boric acid and sodium hydroxide with change of dilution and of temperature, A., 516.

- Kolthoff, I. M., and Bosch, W., measurement of the hydrogen-ion concentration in solutions poor in buffering power by the quinhydrone electrode, A., 533.
influence of neutral salts on acid-salt equilibria. I. Standard value for calculating the activity exponent of the hydrogen-ion concentration, A., 829.
- Kolthoff, I. M., and Tekelenburg, F., potentiometric determination of hydrogen-ion concentration at higher temperatures, A., 124*.
change of p_H in buffer mixtures at varying temperatures, A., 329.
- Kolthoff, I. M., and Vleschhouwer, J. J., buffer solutions with p_H value between 2.0 and 6.6, A., 124*.
potentiometric determination of ferrous and ferrocyanide [ions] with potassium bromate, A., 127.
correction for the new citrate buffer solutions, A., 221, 626.
further buffer solutions for the alkaline range, A., 1159.
- Komant, W. See Meerwein, H.
- Komar, N., determination of small quantities of carbon monoxide in air, B., 936.
- Komarek, G., and Malcolmson Engineering & Machine Corporation, dryer, (P.), B., 800.
- Komaretzky, S., oxidation of stannous to stannic salts, A., 31.
- Komarevsky, W. See Neuberg, C.
- Komarovskaja, E. See Salkind, J.
- Komatsu, M., chemical nature of the serum-globulin of the haematoporphyrin rabbit, A., 1106.
changes in plasma-proteins of haematoporphyrin rabbits, A., 1216.
- Komatsu, S., and Okinaka, C., proteins. III. and IV. Action of superheated water on proteins. II. and III., A., 686.
- Komatsu, S., and Sasaoka, Y., Japanese plants. VIII. Occurrence of free pentose in bamboo shoots, A., 599.
- Komatsubara, H. See Irata, H.
- Komm, E., vitamin-containing food preparations and their content of anti-beri-beri vitamin, B., 91.
- Komori, Y., composition of the spawn from *Hemifusus tuba*, Gmel., A., 169.
diazo-urine. I. Chemical composition of the diazo-urine in tuberculosis, A., 170.
glucosamine compounds, A., 372.
- Komori, Y., and Sendju, Y., comparative biochemistry. III. Behaviour of nicotinic acid in the organism of mammals and birds, A., 171.
- Komori, Y., Sendju, Y., Sagara, J., and Takamatsu, M., comparative biochemistry. II. Behaviour of aromatic fatty acids and of pyridine in the organism of lower animals, A., 170.
- Kon, G. A. R., and May, G. J., three-carbon system. XIII. Effect of bulky substituents and of the cycloheptane group on the tautomerism, A., 853.
- Kon, G. A. R., and Narayanan, B. T., three-carbon system. XII. Effect of positive substituents in the α -position on the tautomerism, A., 873.
preparation of unsaturated ketones from the chlorides of hydroxy-acids, A., 878.
- Kon, G. A. R., and Nutland, J. H., three-carbon system. X. Mobility of some cyclic ketones, A., 153.
- Kon, G. A. R., and Qudrat-i-Khuda, M., *cis-o*-carboxycyclohexanecetic acid, A., 150.
- Kon, G. A. R. See also Hugh, W. E.
- Kon, S. K., temporary spontaneous disappearance of typical "beri-beri" symptoms in pigeons fed on diets deficient in vitamin-B, A., 904.
effect of administration of glycine to pigeons on a diet deficient in vitamin-B, A., 904.
- Kon, S. K., and Drummond, J. C., physiological rôle of vitamin-B. III. Vitamin-B deficiency in pigeons, A., 702.
- Konarsky, A. See Pinnsen, L.
- Konarzewski, J., influence of wet grog on the properties of saggars and other refractory goods, B., 723.
- Konarzewski, J., and Vickers, A. E. J., discoloration of clays during firing, B., 523.
- Kondakov, S., isomerisation of hydrocarbons by phenols, B., 505.
- Kondo, K., manufacture of diffraction gratings for spectroscopic, optical, and like purposes, (P.), B., 93.
- Kondo, K., and Hayashi, T., proteins. IV. Preparation of rice glutelin. V. Point of optimum flocculation of rice glutelin, A., 268.
proteins. VII. Refractive indices of protein solution. I., A., 269.
- Kondo, K., Hayashi, T., and Matsushita, T., proteins. VI. Influence of salts on the point of optimum flocculation of rice glutelin, A., 269.
- Kondô, M., storage of rice and changes of its physical properties during this period, B., 151.
- Kondratëev, V., mechanism of chemiluminescence reactions in gases, A., 1124.
- Kondratëev, V., and Leipunski, A., critical potential of iodine, A., 1000.
- Kondyrev, I. N. See Ipatiev, V. N.
- Konen, H., quantitative spectral analysis, A., 329.
- Konig, A., See Staatliche Porzellan-Manufaktur.
- Kono, H. See Kita, G.
- Kononov, M. See Omélianski, V.
- Kononova, M. M. See Omélianski, V.
- Konopnicki, A., and Plazek, E., preparation of 2:3-diaminopyridine by amination of 3-aminopyridine, A., 1200.
- Konovalova, R. A. See Tschitschibabin, A. E.
- Konschak, M. See Ruff, O.
- Koolhaas, D. R. See Duin, C. F. van.
- Koolman, C. ten D., producing acid-proof, adherent, and repairable coatings from artificial resins, (P.), B., 260.
- Kopaczewski, W., and Rosnowski, M., electro-capillary phenomena and ions, A., 942.
- Kopaczewski, W., and Sarmiento, A. de M., extreme lability of certain mineral waters, B., 206.
- Kopaczewski, W., and Szukiewicz, W., rôle of some physical factors in the electro-capillary penetration of coloured colloids, A., 726.
- Kopaczewski, W. See also Arnaudi, C.
- Kopp, E., cockchafer oil, B., 451.
Rumanian caraway oil, B., 714.
- Kopp, G. See Terroine, E. F.
- Kopp, H. See Reiner, L.
- Koppanyi, T., Ivy, S. C., Tatum, A. L., and Jung, F. T., avian diabetes and glycosuria, A., 71.
- Koppenhöfer, G. See Küster, W.
- Koppers, H., method and apparatus for cooling coke, (P.), B., 594.
- Koppers, H., and Koppers Development Corporation, apparatus and process for burning ceramics, (P.), B., 524*.
fractional distillation, (P.), B., 929.
- Koppers Co., and Ackeren, J. van, coke ovens, (P.), B., 162.
- Koppers Co., and Becker, J., fuel gas distributing systems for coke ovens, (P.), B., 770.
- Koppers Co. See also Ackeren, J. van, Becker, J., Gluud, W., and Sperr, F. W., jun.
- Koppers Development Corporation. See Koppers, H.
- Korczyński, A., Brydowna, W., and Kierzek, L., indole condensation of phenylhydrazones, A., 255, 467*, 573*.
- Korczyński, A., and Fandrich, B., formation of nitriles by the diazo-reaction, A., 548*.
- Korczyński, A., Karłowska, G., and Kierzek, L., derivatives of fluorene, A., 347, 551*.
- Kordes, E., change of entropy on melting. I. Variation of the entropy change of the elements with atomic number, A., 314.
eutectic f.p. depression in binary mixtures. II., A., 1132.
- Kordt, O., grinding bodies for ball, drum, and tubular mills, (P.), B., 63, 736.
- Koref, F., and General Electric Co., device for transforming the crystalline structure of [tungsten] wires, (P.), B., 491.
- Koref, F., Hoffmann, H., and General Electric Co., process of preparing metals, (P.), B., 225.
- Koref, F., Moers, K., and General Electric Co., working refractory metals, (P.), B., 606*.
- Korff, S. A., hardness of metals in relation to periodicity, A., 613.
- Korn, determination of mechanical wood in paper by the phloroglucinol method, B., 649.
- Kornalik, F. See Jirsa, F.
- Korneff, W., apparatus for measurement of suction force and moisture content of soils, (P.), B., 344.
- Kornfeld, G., and Steiner, W., absorption spectrum of dry chlorine, A., 1122.
- Korsakova, M., and Bilinkina, V., soil biodynamics. II. Microbiological characteristics of the soils in the podsol region. I. Fixation of atmospheric nitrogen, B., 454.
- Korsakova, M., and Lopatina, G., soil biodynamics. III. Microbiological characteristics of the soils in the podsol region. II. Energy of soil microbiological activities, B., 454.

- Korsunski, M. See Seljakov, N.
 Korsunsky. See Corson, M. G.
 Korte, H. See I. G. Farbenind. A.-G.
 Kosaka, Y., and Oshima, Y., formation of naphthalene during high-temperature carbonisation, B., 691.
 naphthalene formation in coal tar, B., 741.
 Koser, S. A., cellobiose fermentation by the coli-aërogenes group, A., 280.
 Koser, S. A. See also Eckfeldt, G. A.
 Kosman, M. See Lukirsky, P.
 Kossel, W., and Steenbeck, M., absolute measurement of light quanta in an X-ray beam, A., 706.
 Kossenko, K. See Krassuski, K.
 Kostytschev, S., specificity of enzymes, A., 173.
 nitrate assimilation in moulds, A., 703.
 Kostytschev, S., Bazyrina, K., and Vassiliev, G., yield of carbon compounds in photosynthesis under natural conditions, A., 384.
 Kostytschev, S., and Medvedev, G., inactivation of some yeast enzymes by zinc and cadmium salts, A., 379.
 Kostytschev, S., Medvedev, G., and Kardo-Sysojeva, H., alcoholic fermentation. XIII. Non-existence of cell-free fermentation, A., 902.
 Kostytschev, S., Riskal'chuck, A., and Shretzova, O., fixation of molecular nitrogen by *Azotobacter agilis*, A., 593.
 Kostytschev, S., Sheloumova, A., and Shul'gina, O., soil bio-dynamics. I. Microbiological characteristics of southern soils, B., 454.
 Kotake, M., condensation products of isatin. I. A., 1199.
 constituents of *Laganum (echinoidea)*. I., A., 1215.
 Kotake, Y., and Ichihara, K., excretion of kynurenic acid in bile, A., 990.
 Kothny, E., refractories for the electric steel furnace, B., 908.
 Kotter, F. See Fischer, Hans.
 Koube, N. N., deposition of lipins in the walls of the aorta in infants, A., 896.
 Koudelka, V., influence of brewery water on the composition of wort and beer, B., 567.
 Kovache, reduction of the viscosity of CP2 by boiling in alkaline waters, B., 716.
 Kovandjiev, A. See Balarev, D.
 Kovenchevsky, V. See Chick, H.
 Kozlowski, A., non-protein cysteine in plants; attempted isolation of glutathione from the pea (*Pisum sativum*), A., 80.
 Kracek, F. C. See Henderson, L. M.
 Kracovski, J. See Farmer, E. H.
 Kraeff, A. A., laboratory examination of paints, B., 417.
 Krägeloh, F. See Schenck, R.
 Kraemer, E. O., colloidal behaviour of aqueous gelatin systems, A., 621.
 Kraemer, E. O., and Dexter, S. T., light-scattering capacity (Tyndall effect) and colloidal behaviour of gelatin sols and gels, A., 621.
 Krämer, F. See Schulz, M.
 Kränzlein, G., Voss, A., and Grasselli Dyestuff Corporation, preparation of magnesium chromates, (P.), B., 778.
 Kränzlein, G. See also I. G. Farbenind. A.-G.
 Krafft, M., manufacture of chemically pure sulphuric acid, (P.), B., 140, 522*.
 Kraft, B. See Brüning, A.
 Kraiss, P., wetting-out agents for [wool]-carbonising liquors, B., 248.
 Kraiss, P., Biltz, K., and Renner, O., digestion of plant materials with nitric acid, B., 744.
 Kraiss, A. See Chemische Fabrik auf Aktien (vorm. E. Schering).
 Krakoviecki, S. See Milobedzki, T.
 Krall, R. See Woodall-Duckham (1920), Ltd.
 Krall, S. See Shepard, N. A.
 Kramer, B., Kramer, S. D., Shelling, D. H., and Shear, M. J., antirachitic value of cod-liver oil concentrate injected subcutaneously, A., 382.
 Kramer, B., Shear, M. J., and Shelling, D. H., fractionation of irradiated cholesterol. II. Antirachitic potency of fractions, A., 282.
 Kramer, B. See also Shear, M. J.
 Kramer, E., and Hartstoff-Metall Akt.-Ges. (Hametag), pulverising mills, (P.), B., 927.
 Kramer, G. A., and Simplex Refining Co., process of producing lubricating oils, (P.), B., 246*.
 Kramer, M. M. See Craven, V. C.
 Kramer, S. D. See Kramer, B.
 Kramers, H. A., free energy of a mixture of ions, A., 626.
 Krane, W., apparatus for removing the supernatant liquid from centrifuged precipitates, A., 438.
 Krane, W. See also Weber, J.
 Kranig, J. See Kogerman, P. N.
 Kranjčević, M., and Rukonić, G., use of mercuri-amides in analytical chemistry, A., 746.
 Krantz, H., drying textiles, (P.), B., 474*.
 Krantz, J. C., jun., and Stama, F. J., stability of physostigmine [esorine] solutions, B., 732.
 Krantz, J. C., jun. See also Macht, D. I.
 Kranz, K. W. See Brand, K.
 Krase, H. J., and Hetherington, H. C., removal of carbon dioxide from gas mixtures intended for ammonia synthesis, B., 250.
 Krase, H. J., Thompson, J. G., and Yee, J. Y., fixation of nitrogen as aluminium nitride, B., 73.
 Krase, H. J. See also Clark, K. G.
 Krase, N. W., separating nitrogen oxides from ammonia oxidation gas [by silica gel], B., 10.
 Krasikov, S. E. See Tschugaev, L. A.
 Krasil'shchikov, B. E. See Kukharensko, I. A.
 Krassnovski, O. See Muravlev, I.
 Krassovitzkaja, S. See Tscharny, A. M.
 Krassuski, K. [with Stepanov, A. V., Kossenko, K., and Kussner, T.], reaction between α -oxides and ammonia or amines, A., 546.
 Krassuski, K., and Kussner, T., action of ammonia on isosafrole oxide, A., 1184.
 Krauch, C., technical and economic considerations on the better utilisation of coal with especial reference to high-pressure processes, B., 592.
 Kraus, C. A., and Burgess, W. M., system lithium chlorate-water, A., 627.
 Kraus, C. A., Callis, C. C., and Standard Development Co., making metallo-organic compounds, (P.), B., 173*.
 [lead-sodium] alloy, (P.), B., 606.
 manufacture of metallo-organic [alkyl] compounds, (P.), B., 797*.
 Kraus, C. A., Carney, E. S., and Johnson, W. C., density of solutions of sodium in liquid ammonia, A., 1023.
 Kraus, C. A., and Foster, L. S., phenylgermanium derivatives, A., 268.
 Kraus, C. A., and Seward, R. P., influence of electrolytes on the solubility of other electrolytes in non-aqueous solvents, A., 1020.
 Kraus, C. E., cement [ceramic] composition, (P.), B., 557.
 Kraus, E. See Fabrik van Chemische Producten.
 Kraus, E. J., reaction between ferrous salts and dimethylglyoxime, A., 746.
 Kraus, F. See Souček, J.
 Kraus, J., separation of copper and mercury, A., 436.
 Krause, A. See Scherbaum, B.
 Krause, E., and Renwauz, G., metallic derivatives of thiophen. I. Tin tetra- α -thienyl and lead tetra- α -thienyl, A., 891.
 Krause, E., Róka, K., and Holzverkohlungs-Ind. A.-G., making formaldehyde from methylene chloride, (P.), B., 268.
 Krause, E. F., and Novosselov, A. N., preparation of electrically pure water, A., 952.
 Krause, F., phosphoric and lactic acid production in pulped glands, A., 901.
 Krause, H. See Lindemann, H.
 Krause, H. F., and Weyl, W., system: sodium oxide-barium oxide-silica-carbon dioxide. I. Reactions in the solid state between sodium carbonate, barium carbonate, and silica, A., 841.
 Krause, H. F. See also Agde, G.
 Krauskopf, F. C., and Swartz, C. E., molybdenum thiocyanate and the qualitative detection of molybdenum, A., 127.
 Krauskopf, F. C. See also Botts, E. D.
 Krauss, F., volatility of the compounds formed by heating barium sulphate with sulphuric acid, B., 139.
 Krauss, F. [with Schrader, G.], cyanogen compounds of the platinum metals, A., 951.
 Krauss, F., and Brodtkorb, F., *cis-trans*-isomerism among metallic salts of the type $R_2M^{II}X_2$, A., 951.
 Krauss, F., and Fricke, A., aluminium sulphate and its hydrates; double sulphates and their components. II., A., 1043.
 Krauss, (Frl.) M. See Pollak, J.
 Krauss, W. See Merck, E., Chem. Fabr.
 Kraut, H., and Bauer, Erwin, papain, A., 377

- Kraut, H., and Eichhorn, F., yeast gum and the purification of compounds with high mol. wt. by adsorption, A., 860.
- Kraut, H., Eichhorn, F., and Rubenbauer, H., preparation of yeast gum by enzymic degradation and the detection of an enzyme in yeast which hydrolyses yeast gum, A., 860.
- Kraut, H. See also Willstätter, R.
- Krauz, C. K., and Blechta, F. J., nitration of cellulose in the presence of phosphoric acid, B., 137.
- Kravkov, S. P., agrological investigations of the dynamics of biochemical processes in podsol soils, B., 151.
- Krawetz, J. See Tharaldsen, C. E.
- Kray, R. H., determination of very small amounts of yellow phosphorus in red phosphorus, B., 701.
- Kraybill, H. R. See Potter, G. F.
- Krechma, I. J., and Williams, J. W., dielectric constants of binary mixtures. III. Electric moments of certain organic molecules in carbon tetrachloride solution, A., 1132.
- Krehma, I. J. See also Williams, J. W.
- Krebs, A., determination of refractive indices from reflexion measurements in the infra-red, A., 189.
- Krebs, A. S., and Krebs Pigment & Chemical Co., quenching lithopone, (P.), B., 531.
- Krebs, E., apparatus for electrolysing solutions of alkali-metal chlorides, (P.), B., 607, 849.
- Krebs, H. A., rôle of heavy metals in the autoxidation of sugars, A., 341.
- Krebs, H. A., and Nachmansohn, D., vital staining and adsorption, A., 895.
- Krebs, R. P. D. See Maximoff, J.
- Krebs Pigment & Chemical Co. See Krebs, A. S.
- Krebster, A. See Fierz-David, H. E.
- Krech, R. See I. G. Farbenind. A.-G.
- Krehbiel, J. F. See Orton, E., *jun.*
- Kreider, D. A., production of selective emission by flames, A., 90.
- Kreidl, I., preparation of protective agents for plants, (P.), B., 199.
- production of white opacifying media for glasses and enamels, (P.), B., 332.
- seed-pickling materials, (P.), B., 919.
- Kreisinger, H., Bell, J. E., Anderson, J., and Combustion Engineering Corporation, fuel-drying apparatus, (P.), B., 133.
- Kreke, M. *van de*, determination of reducing sugars volumetrically, B., 638.
- Kremann, R., electrolysis of molten alloys. XVIII. Summary of preceding papers, A., 25.
- Kremann, R., Springer, R., and Roth, H., relation between the turbulent internal friction and the constitution of binary liquid mixtures, A., 1132.
- Kremann, R., and Tröster, A., electrolysis of molten alloys. XVII. Zinc with lead, bismuth, and cadmium, antimony with lead and bismuth, and cadmium with lead and bismuth, A., 25.
- Kremens, A. See Raiziss, G. W.
- Kremer, H. See Mark, A. R. F. *van der*.
- Kresel, A., precipitation of bases as silver compounds, A., 270.
- Kress, A. J. See Kunz, K.
- Kress, O., and American Lakes Paper Co., bleaching of paper pulp, (P.), B., 935.
- Krestinskaja, V. N., adsorption. I. Explanation of adaptability phenomenon, A., 409.
- Krestinski, V. N., reaction of magnesium and tribromopropane, A., 441.
- action of halogen acids and phosphorus halides on the acetylenic γ -glycols, A., 442.
- Krestinski, V. N., and Marjin, W., isopropylacetylenylcarbinol and two stereoisomeric forms of diisopropylbutenediol, A., 1052.
- Krestinski, V. N., and Solodki, F., attempted application of Merling's reaction to aldehydes; synthesis of isopropylacetylenylcarbinol, A., 1052.
- Krestovnikov, A., chloride content of the blood of milk-giving animals during milking, A., 586.
- Kretschmar, G. G., glass water still, A., 437.
- Krethlov, A., selective absorption, rotation, and magnetic rotation of camphorquinone in toluene, A., 714.
- Kreulen, D. J. W., ternary coal mixtures, I., II., and III., B., 289, 576, 593.
- laboratory study of the formation and structure of coke, B., 384.
- action of concentrated sulphuric acid on different types of coal. I., B., 576.
- oxidation of different coals at different temperatures. II., B., 736.
- Kreulen, D. J. W., relation between the physical nature and adsorptive capacity of coal samples, B., 864.
- Kreulen, D. J. W. See also Dooremans, L. F.
- Kreutz, A., and Büchner, C., acetic acid and vinegars containing formic acid, B., 92.
- Kreutzberg, O. A., pulveriser, (P.), B., 640.
- Krey, N. L. See Ewing, W. W.
- Kreyberg, L., diagnostic value of the diastatic enzyme of the urine, A., 1106.
- Kreybig, L. *von*, relation between soil reaction and plant growth, B., 310.
- action of superphosphate and Rhcnania phosphate on soil, B., 759.
- Krieble, V. K., Skau, E. L., and Lovering, E. W., extraction of maltase from yeast, A., 902.
- Krieger, W. See Schmidt, M. P.
- Krieger, Y. F., chlorination of ilmenite, B., 701.
- Kriegsheim, H., Vaughan, W., and Permutit Co., manufacture of precipitated zeolites, (P.), B., 842.
- Krings, W., and Ostmann, W., three-component system copper-aluminium-manganese, and its magnetic properties, A., 830.
- Krinizki, J. M., mineral metabolism in experimental tetanus, A., 587.
- Krishnamurti, K., behaviour of silicic acid gel during the drying-up process, A., 19.
- Krishnamurti, K. See also Mukherjee, J. N.
- Krishnamurti, P., and Dey, B. B., hydrolysis of zirconium chromate, A., 121.
- union of benzoylacetoneitrile with organic bases in presence of salicylaldehyde. I., A., 766.
- Krishnamurti, P. See also Dey, B. B.
- Krishnamurthy, P. V. See Varma, P. S.
- Krishnan, K. S., magnetic double-refraction in paramagnetic gases, A., 714.
- Krishnan, K. S., and Raman, C. V., magnetic anisotropy of crystalline nitrates and carbonates, A., 925.
- Krishnan, K. S. See also Raman, C. V.
- Krishnaswami, K. R., at. wt. of antimony from different sources, A., 1120.
- Kriss, M. See Forbes, E. B.
- Kristen, R., method and apparatus for sterilising and preserving food, (P.), B., 314.
- Kristen, W., change in sp. gr. of curd soap during the drying-up process, B., 530.
- Krivobok, V. N., dendritic crystallisation and grain formation in steels, B., 77.
- Kroch, E., valuation of commercial benzene by the "index number" of Ostwald, B., 272.
- Kroch, H. See Freundlich, H.
- Kroeber, L., testing glass vessels for holding drugs according to the specifications of the German Pharmacopœia, 6th ed., B., 723.
- Kröber, W. See Hantzsch, A.
- Kröcker, F. See Meixner, A.
- Kröger, M. See Le Blanc, M.
- Kröhnke, F., sensitive reaction for bivalent iron, A., 332.
- detection and determination of very small quantities of iron in drinking and industrial waters, B., 542.
- Kröner, W. See Abderhalden, E.
- Kröning, O., and Bois, R., steel-hardening bath, (P.), B., 819.
- Kroetz, C., biochemistry of irradiation. IV. Changes in the total mineral balance under the influence of ultra-violet light, A., 589.
- Krogh, A., accuracy obtainable by repetition of simple measurements, A., 1116.
- Krogh, A., and Nakazawa, F., measurement of colloid-osmotic pressure in biological fluids, A., 1104.
- Krolikovski, J. See Compagnie Nationale de Matières Colorantes et Manuf. de Prod. Chim. du Nord Réunis, Établ. Kuhlmann.
- Kroll, N. See Horrmann, P.
- Kroll, W., age-hardening aluminium alloys; substitution of beryllium for silicon in duralumin, alutal, and aludur, B., 488.
- mechanical properties of binary aluminium-beryllium alloys, B., 489.
- age-hardening aluminium alloys; replacement of silicon with germanium, B., 632.
- system germanium-aluminium, B., 632.
- age-hardening aluminium-silver alloys, B., 704.
- Kronenberger, A., and Pringsheim, P., absorption spectrum of solid benzene at -180° , A., 90.

- Kronig, *R. de L.*, theory of dispersion of X-rays, A., 83.
 Kronman, *J.* See Lachs, *H.*
 Kropfhammer, *G.*, water-glass paints, (P.), B., 197.
 Kropp, *G. P.*, settling tank, (P.), B., 510.
 Kropp, *W.* See Hahl, *H.*, and I. G. Farbenind. A.-G.
 Kross, *W.* See Thoms, *H.*
 Kruber, *O.*, homologues of indole in coal tar, A., 157.
 Krückeberg, *F.* See Tröger, *J.*
 Krüger, *C.*, production of cast articles from volcanic stones or like materials or mixtures thereof, (P.), B., 412.
 Krüger, *D.*, ripening of alkali-cellulose, B., 164.
 Krüger, *F. A. O.*, standardisation and measurement of colour, B., 118.
 Krüger, *P.*, and Graetz, *E.*, proteolytic enzymes in river crayfish, A., 690.
 Krüger, *P.* See also Hallbauer, *A.*
 Kruger, *E. A.* See Tronov, *B. V.*
 Kruger, *J. H.* See Mitchell, *H. H.*
 Kruglov, *A. A.* See Salkind, *J. S.*
 Krull, *F. B.* See Silica Gel Corporation.
 Krummenacher, *E.* See Society of Chemical Industry in Basle.
 Krumple, *O.* See Hausmann, *W.*
 Krupp A.-G., *F.*, making tools from hard metal alloys produced by sintering, (P.), B., 658.
 manufacture of moulded castings of non-rusting chromium-nickel steel, (P.), B., 753.
 electric resistance furnace, (P.), B., 786.
 treatment of low-carbon steel and iron, (P.), B., 912.
 manufacture of articles from sintered hard-metal alloys, (P.), B., 942.
 Krupp Grusonwerk A.-G., *F.*, purification of waste gases [from lead-fume furnaces], (P.), B., 114.
 treatment of tin-containing ores and metallurgical products, (P.), B., 195.
 apparatus for expressing liquid constituents from materials of various kinds, (P.), B., 241.
 extraction of lead and zinc from ores and metallurgical products, (P.), B., 415.
 production of zinc, (P.), B., 448.
 treatment of zinciferous flue dust, (P.), B., 560.
 de-watering flotation slimes, (P.), B., 633.
 working up complex ores and metallurgical products, (P.), B., 659.
 [mechanically] cleaning plant fibres, (P.), B., 699.
 apparatus for the treatment [to separate kernels and pulp from nuts] of oil-containing fruits [oil-palm], (P.), B., 787.
 Krupp Grusonwerk A.-G., *F.*, and Noble & Thorl, Nachfolg., process and apparatus for expressing liquid constituents from materials, (P.), B., 176.
 Krupp Grusonwerk A.-G., *F.*, and Stäblein, *F.*, thermo-element for measuring high temperatures, (P.), B., 450.
 Krupp Grusonwerk A.-G., *F.*, and Stephani, *H.*, working up ores and metallurgical products of various kinds containing volatilisable metals, (P.), B., 583.
 Krupp Grusonwerk A.-G., *F.* See also Johannsen, *F.*
 Kruse, *H. D.* See McCollum, *E. V.*
 Krustinson, *J.* See Centnerszwer, *M.*
 Krutsch, *A.* See Hahn, *F. L.*
 Kruyt, *H. R.*, and Robinson, *C.*, lyotropy, A., 311.
 Krylow, *E.* See Essin, *O.*
 Krzikalla, *H.* See Biltz, *H.*, and I. G. Farbenind. A.-G.
 Ksanda, *C. J.*, electromagnetic separator for laboratory use, B., 144.
 Kubasta, *J.* See Röchling'sche Eisen & Stahlwerke G.m.b.H.
 Kubelka, *V.*, and Wagner, *J.*, proposed method for the determination of the enzyme value of artificial bating materials, B., 260.
 Kubie, *L. S.*, solubility of oxygen, carbon dioxide, and nitrogen in mineral oil; transfer of carbon dioxide from oil to air, B., 643.
 Kubierschky, *K.*, and Schultze, *W.*, fire-extinguishing liquid, (P.), B., 545.
 Kubina, *H.*, and Plichta, *J.*, sensitive test for bismuth, A., 1048.
 Kubler, *J.*, and Aktien-Gesellschaft Brown, Boveri, & Cie, prevention of oxidation of oil in transformers, (P.), B., 786.
 Kubo, *M.*, manufacture of malleable cast iron, (P.), B., 726*.
 Kubota, *B.*, active surface of catalysts, A., 945.
 Kubota, *B.*, and Yamane, *T.*, method of determination of the mol. wt. of organic substances in small quantities by means of f.-p. depressions, A., 925.
 Kubota, *K.*, method of manufacturing from garlic an injection for tuberculosis, (P.), B., 268.
 Kucher, *A. A.*, [compression] refrigerating machine, (P.), B., 768.
 working fluid for refrigeration, (P.), B., 863*.
 Kudrjavezva, *A.*, oxygen requirements of plant roots, A., 283.
 influence of some poisons on the serum-lipase of warm-blooded animals, A., 1112.
 Kuechler, *A. H.* See Wheeler, *E. S.*
 Kühl, *H.*, burning cement, (P.), B., 333.
 Kühn, *H.* See Wolf, *F.*
 Kuehn, *P.*, process for recovering precious metals, (P.), B., 115.
 furnace for smelting and refining iron, steel, and other metals, (P.), B., 561.
 Kühn, *S.*, decolorising carbon [in sugar] work, B., 685.
 Kühnau, *J.*, blood- and insulin-sulphur eliminated by hydrogen and its behaviour on treatment with hydrogen cyanide and cyanamide, A., 795.
 Kühnel, *R.*, structure and properties of red brass, B., 78.
 Kuehnrich, *P. R.*, heat-treatment of alloy steels, (P.), B., 415.
 Kuen, *F. M.*, determination of guanidine and its alleged occurrence in urine during tetany, A., 988.
 determination of carnosine, A., 1215.
 Kündig, *F.*, production of coffee free from caffeine, (P.), B., 504*.
 Künle, *O.*, method of ignition in calorimetric determinations of calorific value, B., 354.
 Künstner, *G.* See Willstätter, *R.*
 Küntzel, *A.*, swelling of collagen fibres in acids. I. Mineral acids, A., 19.
 Küpper, *A.*, determination of the specific heat of various solutions obtained in the potash industry, B., 478.
 specific heat of carnallite and the heat of dissolution of carnallite and potassium chloride in leach liquors, B., 478.
 cold-leaching of carnallite, B., 479.
 Küpper, *A.*, and Althammer, leaching [carnallite] to obtain the usual mother-liquor, B., 479.
 Küpper, *A.* See also Junck.
 Küppers, *P.* See Lipp, *P.*
 Kürschner-Brünn, *K.*, lignin, B., 164.
 Kürten, *T.* See Deutsche Ton- & Steinzeug-Werke A.-G.
 Kuester, *H. L.*, rhizome and roots of *Podophyllum peltatum*, L., B., 266.
 Küster, *W.*, chemical mechanism of porphyrin formation and constitution of hæmin, A., 679.
 hæmochromogen and hæmoglobin, A., 784.
 Küster, *W.*, and Koppenhöfer, *G.*, synthesis of a substance resembling porphyrin, A., 1094.
 Küster, *W.*, and Schlayer, *K.*, porphyrins. XIII. Porphyrin formation and the structure of hæmin, A., 980.
 Kugelmass, *I. N.*, mechanism of blood clotting, A., 270.
 Kuhlmann, *A. G.*, rapid [method of] extraction, A., 1049.
 Kuhn, desensitisers, B., 620.
 Kuhn, *A.* See Still, *C.*
 Kuhn, *H.*, uniform heating of coke ovens, B., 672.
 Kuhn, *H.* See also Franck, *J.*, and Wolf, *F.*
 Kuhn, *R.*, and Albrecht, *H.*, stereochemistry of the tetrahedral carbon atom. V. Salt formation from the nitro-paraffins, A., 749.
 stereochemistry of aromatic compounds. IV. Racemisation of optically active diphenic acids, and rotation of the benzene nucleus in the diphenyl system, A., 876.
 Kuhn, *R.*, Braun, *L.*, Seyffert, *C.*, and Furter, *M.*, catalytic hydrogenation of hæmin, A., 784.
 Kuhn, *R.*, and Heckscher, *R.*, formation of lactic acid from methylglyoxal by the action of enzymes; keto-aldehyde mutases. I., A., 74.
 insulin and co-zyrnase in their relation to glyoxalase; separation of antglyoxalase and trypsin; keto-aldehyde mutases. II., A., 74.
 Kuhn, *R.*, Jacob, *P.*, and Furter, *M.*, stereochemistry of aromatic compounds. III. Condensation of aromatic diamines with dicarboxylic anhydrides, A., 869.
 Kuhn, *R.*, and Münch, *H.*, gluco- and fructo-invertases. II., A., 483.
 Kuhn, *R.*, and Rebel, *O.*, stereochemistry of the tetrahedral carbon atom. VI. Configuration of the glycols obtained by reduction of aldehydes by zinc-copper couple, A., 852.
 Kuhn, *R.*, and Wagner-Jauregg, *T.*, action of enzymes on γ -methylglucoside, A., 173.
 Kuhn, *R.*, and Winterstein, *A.*, synthesis of triphenyl, A., 349.

- Kuhn, R., and Zell, R., stereochemistry of the tetrahedral carbon atom. IV. Isomerism of the chloromalic acids, A., 41.
- Kuhn, R. See also Willstätter, R.
- Kuhn, W., intensity of anomalous dispersion in non-luminous vapours of thallium and cadmium, A., 295.
- absorptive power of atom-nuclei for γ -rays, A., 606.
- polarisation of atomic nuclei and its relation to the origin of γ -rays, A., 915.
- Kuhnert, W. A., recovery of sodium sesquicarbonate from brine, (P.), B., 252.
- recovery of carbonate compounds of sodium and borax from brines, (P.), B., 388.
- Kuijman, J. See Schoorl, N.
- Kukhareenko, I. A., composition of lime used in the sugar industry, B., 664.
- Kukhareenko, I. A., and Benin, G. S., sucrose crystallisation, A., 820.
- Kukhareenko, I. A., and Kartashev, A. K., sucrose crystallisation, B., 952.
- Kukhareenko, I. A., and Krasil'shchikov, B. E., sucrose crystallisation, B., 567.
- Kukhareenko, I. A., and Savinov, B. G., sucrose crystallisation, B., 730.
- Kukhareenko, I. A., and Verkentin, M. E., crystallisation of sucrose, A., 341.
- Kulas, C., Pauling, C., and Kulas, C., manufacture of phenol resins, (P.), B., 119.
- Kuleliev, K. See Balarev, D.
- Kulkarni, D. A. See Varmi, P. S.
- Kullgren, C. F., and Lind, S. G., production of pure sugar liquors, (P.), B., 499.
- Kullmann, A. See Berl, E.
- Kultigin, A., effect of irradiation on fat metabolism, A., 898.
- Kundu, P. See Chaudhury, S. G., and Mukherjee, J.
- Kunitz, M., hydration of gelatin in solution, A., 726.
- Kunitz, M. See also Northrop, J. H.
- Kunsman, C. H., thermionic experiments with a new source of positive ions, A., 180.
- thermionic emission from iron-alkali mixtures used as catalysts in the synthesis of ammonia, A., 603.
- decomposition of ammonia on iron catalysts, A., 1039.
- Kunz, E., determination of sugar in carbonatation scums, B., 234.
- Kunz, K., and Kress, A. J., preparation of a respiration model with a complex iron compound of indigotin, A., 366.
- Kunz, M. See I. G. Farbenind. A.-G.
- Kunze, H. See Kirpal, A.
- Kunze, O. See Heyl, G. E.
- Kunze, W. See Jantsch, G.
- Kuppers, J. See Gewerkschaft Sachtleben.
- Kurdjumov, G., improvements in the Debye-Scherrer technique, A., 814.
- Kurdjumov, G. See also Seljakov, N.
- Kurelec, V. R. von, position of the absorption bands of potassium permanganate and uranyl nitrate in various colourless solvents, A., 306.
- Kurland, S. See Baumann, E. J.
- Kurmeier, A., tannin of native oaks and true chestnut, B., 610.
- Kurnakov, N. S., and Nemilov, Y. A., hardness, micro-structure, and electrical conductivity of platinum-silver alloys, A., 1133.
- Kurnakov, N. S., and Nikolaiev, V. T., univariant folds in salt-formation diagrams; sodium nitrate, A., 313.
- Kuroda, T., toxicity of local anaesthetics administered intra-arterially, A., 376.
- Kurokawa, T., influence of the pancreatic hormone on the fate of infused dextrose, A., 78.
- Kursanov, D. N. See Nametkin, S. S.
- Kurtenacker, A., and Goldbach, E., analysis of polythionate solutions, A., 1045.
- Kurtenacker, A., and Werner, *Felicitas*, catalysis of hydroxylamine. III, A., 320.
- catalysis of hydroxylamine. IV. Decomposition of hydroxylamine in alkaline solution, A., 320.
- Kurtenacker, A., and Wollak, R., iodometric analysis of a mixture of sulphide, sulphite, and thiosulphate, A., 534.
- determination of sulphate in presence of other sulphur compounds, A., 638.
- Kurtz, F., reducing power of sulphite liquor and of ligno-sulphonic acid, B., 164.
- Kurtz, S. S., jun., plastic films and the drop-weight method of interfacial tension measurement, A., 930.
- Kus, T. G., and American Coke & Chemical Co., coke oven, (P.), B., 721.
- Kusaba, S. See Terada, T.
- Kuschmann, J. See Ruer, R.
- Kuss, E. See Mittasch, A.
- Kusserow, R., manufacture of pressed yeast, (P.), B., 666.
- cleaning of molasses for the manufacture of compressed yeast, (P.), B., 921.
- Kussmann, A. See Steinhaus, W.
- Kussner, T. See Krassuski, K.
- Kutznar, W., probability law and the α -particle emission of polonium, A., 1003.
- scintillation spectra, A., 1121.
- Kuwada, K. See Edwards, C. A.
- Kuwada, Y., and Sakamura, T., colloid chemical and morphological study of chromosomes, A., 1103.
- Kuyk, F. A. J. van. See Bergh, Z. van den.
- Kwieciński, L., and Marchlewski, L., absorption of ultra-violet light by copper sulphate solutions, A., 291.
- absorption of ultra-violet light by *d*-galactose, A., 291.
- spectrographic investigations on carbohydrates in the ultra-violet, A., 1056.
- Kyber, W., production of phosphoric acid from moist producer gas containing phosphorus compounds, (P.), B., 298.
- simultaneous manufacture of iron phosphide and fused cement, (P.), B., 877.
- manufacture of fused cement and gases containing phosphorus, (P.), B., 909.
- Kylin, E., calcium and potassium content of the blood, A., 1102.
- calcium metabolism in diabetes, A., 1106.
- Kylin, H., carotinoid pigments of the higher plants, A., 669.
- carotinoid pigments of algae, A., 703.
- Kyrides, L. P. See Livingston, J. W.
- Kypopoulos, S., variation of the dielectric constant of liquids with pressure up to 3000 kg./cm.², A., 92.
- preparation, refractive index, and dielectric constant of red crystalline selenium, A., 189.
- L.
- Laabs, W. See Allbright-Nell Co.
- Laage, A. See Ganssen, R.
- Laake, E. W. See Roark, R. C.
- Laar, J. J. van, separation of pure ice, A., 21.
- maximum and minimum density and the heat of evaporation of helium. I. and II., A., 301.
- limiting value of latent heat of vaporisation at the absolute zero, A., 403.
- course of the m.-p. line of helium at very low temperatures, A., 718.
- Nernst's heat theorem, A., 936.
- equation of state of solid substances. IV. Heats and pressures of evaporation, sublimation, and melting in the neighbourhood of absolute zero, and Nernst's so-called heat theorem, A., 1031.
- Labaune, L. See Dupont, J.
- Laby, T. H. See Aberdeen, J., and Hercus, E. O.
- Lacell, M. N., and Jessup, A., production of metallic magnesium, (P.), B., 605.
- Lacey, H. T. See Orndorff, W. R.
- Lachs, A. See Dilthey, W.
- Lachs, H., and Kronman, J., flow potentials, A., 208.
- Lacôte, (Mlle.). See Ramart, (Mme.) P.
- Lacore, A., and Piron, J., rotary furnaces, (P.), B., 287.
- La Cour, J. L., and Lindh, F. O. M., tough annealing of metal alloys, (P.), B., 528.
- Lacourt, A., dehydration of cyclohexanols to ethers, A., 761.
- Lacroix, A., composition and structure of meteoric iron from Tamentit; oxidation of meteoric iron at a high temperature, A., 850.
- Lacroix, G., dyeing cellulose acetate, (P.), B., 964.
- Lacy, B. S., and Roessler & Hasslacher Chemical Co., production of hydrocyanic acid, (P.), B., 74.
- Ladenburg, R., anomalous dispersion in electrically excited hydrogen, helium, neon, and mercury, A., 93*.
- magnetism and the periodic system, A., 493.
- Laer, M. H. van, lambic fermentation, B., 952.
- La Face, F., bergamot, B., 732.

- Lafitte, P., magnesium-silver alloys, A., 219.
 Laforce. See Fonzes-Diacon.
 Lage, E. A., production of photographic plates, films, and the like for indirect three-colour photography, (P.), B., 349.
 production of coloured photographs on paper or the like, (P.), B., 380*.
 Lagrange, E., coagulation of egg-yolk by pancreatic diastase, A., 1111.
 Lagrave, R. See Lévy, (Mlle.) J.
 Lahart, J. F., Lahart, J. S., and Pierce, H. A., treatment of coal [to prevent smoke formation], (P.), B., 466.
 Lahart, J. S. See Lahart, J. F.
 Lahey, J. A. See Vulcan Detinning Co.
 Lahousse, J., insulating material for electric condensers and the like, (P.), B., 519.
 Lai, C. F., sheet steel cooking ware white enamels economically suitable for use in China, B., 778.
 Lainé, H., apparatus for the manufacture and delivery of hydrocyanic acid gas, (P.), B., 298.
 insecticide and disinfectant, (P.), B., 826.
 Laing, B. See Nielsen, H.
 L'Air Liquide, Société Anonyme pour l'Étude et l'Exploit. des Procédés G. Claude, separation of the constituents of gaseous mixtures by liquefaction, (P.), B., 320.
 apparatus for bringing liquids and gases into contact; [rectification of liquid air], (P.), B., 434.
 manufacture of formates, (P.), B., 796.
 L'Air Liquide, Société Anonyme pour l'Étude et l'Exploit. des Procédés G. Claude, and Société Chimique de la Grande Paroisse, carrying out exothermic reactions, (P.), B., 688, 832.
 L'Air Liquide, Société Anonyme pour l'Étude et l'Exploit. des Procédés G. Claude. See also Claude, G., and Le Rouge, J.
 Laird, E. R., absorption in the region of soft X-rays, A., 179.
 Laird, F. W., preparation of liquid nickel carbonyl, A., 533.
 sedimentation of colloidal particles, A., 823.
 Laise, C. A., manufacture of refractory metal alloy of high density and high melting point, (P.), B., 785.
 Laise, C. A., and Electron Relay Co., manufacture of a refractory metal product [filament], (P.), B., 607.
 Laist, F., and Frick, F. F., concentration of minerals from ores by the use of sulphones as flotation reagents, (P.), B., 633.
 Lakeman, A. See Dunlop Rubber Co., Ltd.
 Lakshmanan, M. See Basu, S. A.
 Lal, K. See Dunncliffe, H. B.
 Lamb, J. W., tanning, dyeing, and finishing formaldehyde-tanned leathers and skins, B., 685.
 Lamb, M. C., dyeing of leather, (P.), B., 453*.
 Lamb, M. C., and Rohm & Haas Co., Inc., treatment of leather, (P.), B., 791*.
 Lambert, A., manufacture of potassium nitrate, (P.), B., 408.
 Lambert, A. J., and Lambert Heater & Engineering Co., Ltd., heating of liquids, (P.), B., 831.
 Lambert, P. N. See Barker, S. G.
 Lambert, R. H., and Wightman, E. P., thermodynamic possibilities of the silver sulphide bromine-acceptor hypothesis of latent image formation, B., 765.
 Lambert, R. H. See also Sheppard, S. E.
 Lambert Frères & Cie, manufacture of plaster, (P.), B., 110.
 Lambert Heater & Engineering Co., Ltd. See Lambert, A. J.
 Lambie, C. G., intermediary carbohydrate metabolism, A., 989.
 Lambie, C. G., and Redhead, F. A., carbohydrate metabolism. III. Influence of dihydroxyacetone on the respiratory metabolism and on the inorganic phosphate of the blood, A., 693.
 Lambie, C. G. See also Kermack, W. O.
 Lambrette, A., machine for drying or chemically treating continuous lengths of fabric or paper, (P.), B., 329.
 Lambrey, M., absorption and emission spectra of nitric oxide in the ultra-violet, A., 808.
 Lambrey, M., and Chalonge, D., use of the discharge in hydrogen as source of continuous spectrum in the ultra-violet, A., 489.
 Lambrey, M. See also Chalonge, D.
 Lambris, G., determination of nitrogen in fuels, B., 289, 321, 354.
 La Mer, V. K., recent advances in the ionisation theory as applied to strong electrolytes, A., 828.
 La Mer, V. K., and Gronwall, T. H., partial molal volumes of water and salt in solutions of the alkali halides, A., 405.
 La Mer, V. K., King, C. V., and Mason, C. F., activity coefficients of electrolytes. I. Limiting law for a ter-valent salt, A., 314.
 La Mer, V. K., and Mason, C. F., activity coefficients of electrolytes. II. Unsymmetric valency-type effect in highly dilute solutions, A., 314.
 Lamoreaux, W. F., making sulphuric acid, (P.), B., 217.
 Lampitt, L. H., Hughes, E. B., and Trace, L. H., presence and detection of furfuraldehyde in vinegar, B., 501.
 Lamplough, F., and Hodgson, A. E., treatment of oil and coal and production of liquid hydrocarbons therefrom, (P.), B., 899.
 Lamprey, R. H. B. See South Metropolitan Gas Co.
 Lan, N. N., preparation of orange shellac in the wet way, (P.), B., 661.
 Lancaster, H. M., influence of soil, season, and manuring on the quality and growth of barley of the 1925 crop as indicated by the malts made therefrom. IV., B., 312.
 Lancaster, J. S. See Burn, J. F.
 Landau, L., theory of the spectra of diatomic molecules, A., 183.
 Lande, J. A. L. van der, and Novadel Process Corporation, manufacture of stable peroxidised composition, (P.), B., 877.
 Lander, C. H., report of test on the "fusion" rotary retort at the works of Electro-Bleach and By-Products, Ltd., Cleford, Cheshire, B., 3.
 production of oil from bituminous coal; work of the Fuel Research Station, B., 739.
 Lander, C. H., and Shaw, J. F., low-temperature carbonisation; vertical retorts at H.M. Fuel Research Station, B., 288.
 Lander, G. See Schulz, Hermann.
 Landi, M. See Omnium des Industries Chimiques (Proc. Tocco & Landi), and Tocco, L.
 Landis, W. S., twenty-five years of progress in the cyanamide industry, B., 298.
 Landis, W. S., Buchanan, G. H., and American Cyanamid Co., method of fumigation [with hydrogen cyanide], (P.), B., 94.
 Landman, M. L., manufacture of bacterial preparations, (P.), B., 90.
 Landsmann, G. See Fuehs, W.
 Landt, E. See Spengler, O.
 Lane, H., and Mellor, W., carbonising textile materials, (P.), B., 472.
 Lane, J. H. See Eynon, L.
 Lane, V. E., non-oxidising annealing furnace, (P.), B., 583.
 Lang, A. See Heuer, W.
 Lang, E. See Ewing, W. W.
 Lang, H. See Lang, S.
 Lang, K. See Stuber, B.
 Lang, R., determination of manganese as permanganate, A., 126.
 catalytic actions of silver chloride in oxidation-reduction processes, A., 738.
 Lang, R. J., new terms in the spectrum of calcium, A., 490.
 series spectra of silver-like atoms, A., 911.
 Lang, R. J. See also Laporte, O.
 Lang, S., and Lang, H., solubility of uric acid in carbonates; effect of carbon dioxide, A., 730.
 Langbein, W. See I. G. Farbenind. A.-G., and Wagner, H.
 Langbein-Pfanhauser-Werke A.-G., colouring iron and steel brown, (P.), B., 194.
 adherent, rust-proof, electrolytic metallic coatings on iron and steel, (P.), B., 223.
 [conveying devices, etc. for] galvanic mass production, (P.), B., 493.
 Langbein-Pfanhauser-Werke A.-G. See also Pfanhauser, W. A. F.
 Lange, B. See Ettisch, G.
 Lange, E., and Eichler, A., heats of dissolution and dilution of salts from extreme dilutions to saturation. III. Potassium fluoride and potassium fluoride dihydrate, A., 1143.
 Lange, E., and Fuoss, R. M., heat of dissolution of sparingly soluble electrolytes. I. Heat of precipitation as a function of the concentration; [silver chloride], A., 419.
 Lange, E., and Schwartz, E., titration potential curves for precipitation reactions, A., 1029.
 Lange, F. See Loewe, S.
 Lange, H., lactacidogen metabolism in diabetic muscle, A., 170.
 Lange, M., manufacture of materials serving both as means for destroying plant pests and as fertilisers, B., 536.
 Lange, W., comparability of the fluorosulphonates with perchlorates in chemical and crystallographical relationship; a fluorophosphate, A., 536.
 Lange, W. See also Traube, W.

- Langedijk, S. L. See Böeseke, J.
- Langenbeck, W., organic catalysts. I. Isatin and its derivatives as catalysts for the dehydrogenation of amino-acids, A., 546.
- Langenkamp, B. See Feist, F.
- Langer, H. See I. G. Farbenind. A.-G.
- Langer, R. M., dispersion of atomic hydrogen. I. and II., A., 93.
- Langford, C. T. See Randall, M.
- Langguth, E., obtaining blende free from chlorides by melting lead-zinc ores with a mixture of potassium and zinc chlorides, (P.), B., 337.
- Langlais, P., and Goby, J., identification of acetic acid in lavender oil, B., 92.
- French lavender oils; the ester question. I., B., 267.
- Langley, W. D. See Hoover, C. R.
- Langlois, G., stabilisation of the camphene ring by carboxylic substitution, A., 567.
- Langman, (Miss) E. M., Healy, W., and Dutt, P. K., influence of substituents on the stability of Schiff's bases. I. Hydrolysis of nitro- and methoxy-benzylideneanilines, A., 768.
- Langmuir, I., flames of atomic hydrogen, B., 529.
- Langmuir, I. See also British Thomson-Houston Co., Ltd., Jones, H. A., and Tonks, L.
- Langner, M. See Meyer, J.
- Langsdorff, W. von. See Wieland, Heinrich.
- Langstaff, E. See Watson, A. F.
- Langston, R. E., and Wayne Co., apparatus for purifying used mineral lubricating oil, (P.), B., 806.
- Langwell, H., fermentation of cellulose, (P.), B., 761*.
- Langwell, H., Ricard, E., and Burton, W. A., fermentation of cellulosic materials, (P.), B., 613.
- Langworthy, (Mrs.) F., possible cause of the changes of colour in vapours, A., 185.
- atomic model for the chemist, A., 290.
- Lanhoffer, I. E., process and apparatus for the preparation of raw materials used in the manufacture of cement, (P.), B., 141.
- Lansberg, L. M. See Elyas, M.
- Lantz, L. A. See Calico Printers' Assoc., Ltd.
- Lantz, R. See Société Anonyme des Matières Colorantes et Produits Chimiques de St. Denis.
- Lanyi, A., lactic acid content of the blood after the administration of levulose, A., 588.
- Lányi, E., reduction of cupric oxide by dextrose and uric acid, A., 320.
- Lányi, K. See Gróh, J.
- Lanyon, C. E., measurement of the adhesive strength of glue, B., 886.
- Lanyon, J. A. See Applebey, M. P.
- Lapa, V., micro-determination of sugar and reducing substances in blood, A., 476.
- Lapenta, V. A., and Reisler, S., medical preparation of colloidal bismuth, (P.), B., 203.
- Laporte, O., interpretation of spectra, especially of the second long period, A., 82.
- screening constants from optical data, A., 601.
- Laporte, O., and Lang, R. J., second spark spectrum of zinc, Zn III, A., 1118.
- Laporte, O., and Sommerfeld, A., spectroscopic interpretation of magneton numbers in the iron group, A., 86.
- Lapp, C., fundamental laws of magnetic viscosity; influence of ageing and annealing, B., 845.
- Lapp, W. H., and Concentrate Products Co., supplemental poultry food material, (P.), B., 923.
- Lapworth, A., Manske, R. H. F., and Robinson, E. B., formation and decomposition of ketonecyanohydrins; some compounds recently classified as such, A., 1080.
- Large, J. M., manufacture of cast iron and steel, (P.), B., 783.
- Larison, E. L., manufacture of sulphuric acid, (P.), B., 554.
- Larison, E. L., and Anaconda Copper Mining Co., manufacture of phosphate fertilisers, (P.), B., 56.
- Larison, E. L., Frick, F. F., Caro, R. J., and Anaconda Copper Mining Co., manufacture of monoammonium phosphate, (P.), B., 481.
- Larose, P. See Johnson, F. M.
- Larrowe Construction Co., manufacture or recovery of substances from residual liquors of the beet sugar industry, (P.), B., 423.
- Larrowe Construction Co. See also Tressler, D. K.
- Larson, A. T., and Brooks, A. P., ammonia catalysts, B., 72.
- Larson, C. M., and Knopf, C. L., viscosity meters, (P.), B., 96.
- Larson, W. P., production of modified pneumococcic antigen and antipneumococcic serum, (P.), B., 317.
- production of modified bacteria and toxins, and immunising serums, (P.), B., 317.
- scarlet fever antigen, (P.), B., 317.
- Larsson, A., refraction and dispersion of X-rays in calcite, A., 298.
- precision measurements of the K-series of molybdenum and iron, A., 603.
- Larsson, E., solubility of acids in salt solutions. I., A., 829.
- Larsson, E. See also Bjerrum, N.
- Larsson, M. See Liljenroth, F. G.
- Larvex Corporation, and Minaev, M. G., moth-proofing composition [for woollen fabrics], (P.), B., 8.
- Lasarev, P., light absorption by the leaves of plants and by chlorophyll solutions, A., 488.
- Lo Chatelier viscosity law, A., 819.
- Lasarev, P., and Lazarev, V., absorption spectra of borax glasses coloured with copper salts, A., 1122.
- Lasaussie, formation of black mustard essence, B., 667.
- lowering of the "essence titer" in preparations of black mustard seeds, B., 712.
- Lascaray, L., saponification of fats in heterogeneous systems, A., 1150.
- Lasch, F., "sympathol," a new adrenaline-like substance; constitution and pharmacodynamical action, A., 900.
- Lasch, F., and Brügel, S., use of saponin in protection of insulin against enzymes, A., 380.
- Lasher, H. M., and Kansas City Gasoline Co., treatment of hydrocarbon oil, (P.), B., 357.
- still, (P.), B., 386.
- Laska, L. See I. G. Farbenind. A.-G.
- Lasmolles, J. R. F. M., gas producers [for wood], (P.), B., 467.
- La Soie d'Aubenton, production of artificial fibres from viscose, immediately washable with water, (P.), B., 184.
- "La Soie de Chatillon," Soc. Anon., maturation of alkali cellulose intended for the preparation of viscose artificial silk, (P.), B., 473.
- Lassieur, A., analysis of silicates, B., 108.
- La Suvapo (Soc. Anon.), prevention of boiler-scale formation, (P.), B., 894.
- Laszlo, D. See Alders, N., and Dische, Z.
- Lategan, P. N., volumetric method for the determination of the ash content and the calorific value of coal, B., 833.
- Lathrop, E. C., Munroe, T. B., and Dahlberg & Co., Inc., production of retted bagasse fibre, (P.), B., 774.
- Latimer, W. M., electrode potentials of beryllium, magnesium, calcium, strontium, and barium from thermal data, A., 941.
- Latimer-Goodwin Chemical Co. See Goodwin, H. B.
- Laubender, W., micro-determination of carbamide in urine without the use of urease, A., 896.
- Laubengayer, A. W. See Dennis, L. M.
- Lauber, E. R., electric furnace for the manufacture of aluminium, (P.), B., 449.
- Lauch, K. See Bosse, J. von.
- Laucks, I. F., the screw as a carbonising machine, B., 177.
- Laucks, I. F. See also Davidson, G.
- Laucks, I. F., Inc. See Davidson, G.
- Laudat, M., analytical method of establishing the "nitrogen formula" for blood-serum, A., 476.
- Laude. See Pariselle.
- Laudig, J. F., determination of total solids in malt vinegar, B., 953.
- Laue, E., amphoteric nature of silver hydroxide, A., 1026.
- corrections for determination of ionic concentrations in very dilute hydroxide solutions, A., 1026.
- Laue, M. von, and Meitner, (Frl.) L., computation of the distribution of range of α -particles, A., 289.
- Lauer, B. E. See Gilbert, E. C.
- Laufberger, V., behaviour of alanine and pyruvic acid in the surviving diabetic liver, A., 374.
- Lauffmann, R., utility and solvent action of different fat solvents in the determination of fat in leather, B., 949.
- Laughlin, W. C., and Laughlin Filter Corporation, machine for separating solids from liquids, (P.), B., 768*.
- Laughlin Filter Corporation. See Laughlin, W. C.
- Laurent, A., liquid fuels, (P.), B., 835.
- Laurent, E., coal and ore washing installations having a single ascending current, (P.), B., 432.
- Laurent, J., roof for kilns or ovens, (P.), B., 321.

- Laurie, A. P., preservation of stone, (P.), B., 77*.
action of sulphur dioxide and water on oils and varnishes, B., 196.
- Laurie, A. P., and Milne, J., evaporation of water and salt solutions from surfaces of stone, brick, and mortar, B., 443.
- Laursen, L. A., method and apparatus for vulcanising rubber articles, (P.), B., 824.
- Laury, N. A., production of anhydrous sodium bisulphite, (P.), B., 778.
production of zinc carbonate, (P.), B., 877.
- Lauter, C. J., determination of colon bacterium, B., 62.
- Lauter, F., and Rohm & Haas Co., resinous reaction product of urea and formaldehyde, (P.), B., 788.
- Lauterbach, A., and Enderlin Gebrüder Druckfabr. & Mech. Weberei Akt.-Ges., preparation of colour reserves with vat dyes under vat dyes, (P.), B., 277.
- Lauth, H. See Manicke, P.
- L'Auvergne Laitière, preparation of cheese of constant flavour and long-keeping quality, (P.), B., 265.
- Lavadoux, E., [cellulose] varnish, (P.), B., 85.
- Lavandier, E. See Hauts Fourneaux & Aciéries de Differdange-St. Ingbert-Rumelange Soc. Anon.
- Laves, W. See Hahn, A.
- Lavialle, P., vitamin-C in cow's milk; relation to concentration, homogenisation, and sterilisation, A., 487.
- Lavoie, M., production of aluminium sulphate and alumina from clay, (P.), B., 188.
- Lavrov, B. A., and Matzko, S. N., gaseous metabolism in the initial stages of B-avitaminosis in birds, A., 382.
- Lavrovski, K. P. See Zelinski, N. D.
- Law, H. See Ewing, W. W.
- Law, K. K., organo-tin compounds, A., 166.
- Lawaczek, F., electrolytic decomposing cell, (P.), B., 338.
- Lawrence, E. O., ionisation of atoms by electron impact, A., 85.
principle of correspondence, A., 88.
ultra-ionisation potentials of mercury, A., 805.
determination of critical potentials and the ionisation potential of mercury vapour, A., 1001.
- Lawrence, J. See Dobson, G. M. B.
- Lawrence, J. S. See Book, A. V., and Dill, D. B.
- Lawrie, J. W., and Du Pont de Nemours & Co., E. I., recovery of glycerin from fermented molasses mash, (P.), B., 455.
- Lawrie, L. G., dyeing of neps, B., 964.
- Lawrie, L. G. See also Baddiley, J., and British Dyestuffs Corporation, Ltd.
- Lawson, R. W., occurrence of helium and neon in vacuum tubes, A., 104.
radioactivity and the heat of the earth, A., 225, 493.
- Lawson, R. W. See also Holmes, A.
- Lawson, W. See Dickens, F.
- Lawson, W. E. See Vedder, E. B.
- Lawton, G. See Bramley, A.
- Laxton, F. C. See Gilbert, F. L.
- Lay, F. C. See Sutcliffe, J. A.
- Layng, T. E., and Coffman, A. W., effect of weathering on the softening and solidification points of coal, B., 736.
- Layng, T. E. See also Urbana Coke Corporation.
- Lazarev, V. See Lasarev, P.
- Lazote, Inc. See Claude, G.
- Lea, C. A. See McLennan, J. C.
- Lea, F. M., and Crennell, J. T., action of iron as an impurity in the lead accumulator. I. Capacity loss due to self-discharge.
II. Permanent capacity loss; adsorption and desorption of the iron by the positive plate, B., 528.
- Lea, F. M. See also Carter, S. R.
- Lea, H. I., process of treating hydrocarbons, (P.), B., 68.
- Leach, R. H., and Handy & Harman, silver alloy, (P.), B., 491.
- Leadizing Co. See Shoemaker, R. J.
- Leaming, T. H., and National Aniline & Chemical Co., Inc., copper [compounds of] azo-dyestuffs, (P.), B., 325.
- Lear, C. See Simonis, H.
- Learner, A. See Haworth, W. N.
- Leather, E. A., removal of liquid from the interior of rotating cylinders or drums, (P.), B., 928.
- Léauté, A., low-temperature distillation of long-flame coals, B., 737.
- Leavenworth, C. S. See Vickery, H. B.
- Leaver, C., and Imperial Oil, Ltd., art of refining oils, (P.), B., 771.
- Leavitt, H. W., and Gowen, J. W., influence of iron content on mortar strength, B., 483.
- Leavitt, H. W., and Gowen, J. W., mineralogical content of Maine sands in relation to mortar strength, B., 602.
- Lebeau, P., industrial preparation of fluorine, B., 297.
- Lebeau, P., and Damiens, A., oxygen compound of fluorine, A., 1044.
- Lebedev, A. F., movement of water in soils and subsoils, B., 918.
- Lebedev, A. N., action of oxidoreductase on glyceraldehyde, dihydroxyacetone, and methylglyoxal, A., 76.
oxidoreductase in yeast, A., 175.
action of oxidoreductase on glyceraldehyde, A., 793.
fermentation of sugar and pyruvic acid, A., 902.
- Lebedev, S. V., and Platonov, M. S., mono- and di-thiotriacet-aldehydes, A., 751.
- Lebediantzev, A., modifications of nitrogenous substances in soil dried in the air and left fallow, B., 709.
modification in the solubility of phosphoric acid and in the biological properties of the soil observed during the fallowing of soil previously dried in the air. I, B., 759.
effect of drying on different types of soils in the "tchernozem" and "podsol" zones of European Russia, B., 973.
- Le Bel, J. A., stereochemistry of ethylene derivatives, A., 38.
- Leber, A., system aluminium-thorium, A., 1030.
- Lebert, M. See Chabanier, H.
- Le Bihan, H. See Cornubert, R.
- Leblanc, See Bonnard.
- Leblanc, A. See Achard, C.
- Le Blanc, M., and Kröger, M., physical properties of caoutchouc, B., 52.
- Lebosquet, M., jun. See Tyler, R. G.
- Le Breton, E. See Kahn, M.
- Lecat, M., azeotropism, particularly of binary systems with chemically related constituents, A., 14.
formulae for the azeotropic constants for mixtures of alcohols and halogen compounds, A., 405.
binary azeotropes. V., VI., and VII., A., 617, 819, 1138.
azeotropism in the binary systems alcohols-organic halides, A., 1133.
- Lecher, H. [with Graf, F., Gnädinger, F., Bolz, K., and Chudoba, K.], peralkylated guanidines. IV., A., 863.
- Lecher, H., and Demmler, G., mechanism of hydrolysis of guanidines, A., 755.
- Lecher, H., and Graf, F., nitrosyl derivatives of bivalent sulphur. III. Nitrosyl thiocyanate, A., 46.
- Lecher, H., and Joseph, G., [thiocyanogen chloride], A., 46.
- Lecher, H., and Siefken, W., nitrosyl derivatives of bivalent sulphur. II. Nitrosylethylmercaptide [ethyl thionitrite], A., 39.
constitution of thiocarbamide and of thiouronium salts, A., 961.
- Lechler, P., production of permanent emulsions, (P.), B., 433.
- Lechler, P. See also Mezger, R.
- Lechler Co., P., and Mezger, R., coating gasometers, (P.), B., 549.
- Lecoq, R. See Randoin, L.
- Lecrenier, A., crystallisation of glass, B., 522.
- Ledbury, W., and Blair, E. W., production of formaldehyde by oxidation of hydrocarbons, B., 955.
- Ledbury, W., and Frost, C. W., solubility of nitroglycerol in water, B., 380.
- Lederer, A., production of carbon, (P.), B., 244.
- Lederer, E. See Kiss, A. von.
- Lederer, H. See Fresenius, L.
- Ledig, K. K., and American Platinum Works, alloy for pen points, (P.), B., 913.
- Ledig, P. G. See Shepherd, M.
- Le Docte, A., determination of sugar in the beet and the use of the Krüger method, B., 537.
Sachs-Le Docte versus Krüger method of determining sugar in the beet, B., 920.
- Ledoux, D. See Schlössing, A. T.
- Lee, A. R. See Bengough, G. D.
- Lee, F. A. See Lynn, E. V.
- Lee, H. R. See Schmidt, J. G.
- Lee, J. A., and Lowry, H. H., effect of moisture on electrical properties of insulating waxes, resins, and bitumens, B., 225.
- Lee, M. O., and Brown, J. B., use of magnesium perchlorate trihydrate and asbestos-sodium hydroxide for determination of water and carbon dioxide in metabolism experiments, A., 800.

- Lee, *S.*, photoactivity. VII. Effect of unsaturated fatty acids on blood sugar, A., 74.
- Lee, *W. B.*, anomalies in the properties of long-chain compounds, A., 851.
- Lee, *W. B.* See also McBain, *J. W.*
- Leech, *W. D.* See Scott, *W. W.*
- Leeds & Northrup Co., and Harsch, *J. W.*, methods and apparatus for heating materials, (P.), B., 241*.
- Leeds & Northrup Co. See also Keeler, *E. A.*
- Leeper, *G. W.* See Cochrane, *J. R.*, and Davies, *W.*
- Leese, *C. E.* See Hines, *H. M.*
- Leeuwen, *E. R. van.* See Meulen, *P. A. van der.*
- Lefebvre, *V.*, cement, concrete, and plaster [containing rubber], (P.), B., 166*.
- manufacture of decorated paper or similar material, (P.), B., 296.
- manufacture of decorated tiles, (P.), B., 443.
- Lefebvre, *H.* See Jolibois, *P.*
- Lefèvre, *J.* See Lobel, *L.*
- Le Fèvre, *R. J. W.*, Moir, *D. D.*, and Turner, *E. E.*, orientation effects in the diphenyl series. IV. Reduction of Bandrowski's and of Strakosch's dinitrobenzidines, and condensation of the products with benzil; nitration of 2-nitrodiaethylbenzidine and of 4:4'-dibromodiphenyl, A., 1062.
- Le Fèvre, *R. J. W.*, Saunders, *S. L. M.*, and Turner, *E. E.*, scission of diaryl ethers and related compounds by piperidine. I. Scope of the method; constitution of some nitro-derivatives, A., 660.
- Le Fèvre, *R. J. W.*, and Turner, *E. E.*, piperidine as a general reagent for the determination of the constitution of halogeno-nitro-compounds; nitration of 4:4'-dihalogeno-diphenylmethane and -s-diphenylethane, A., 653.
- benzidine monohydrate; m. p. of benzidine, A., 869.
- Le Fèvre, *R. J. W.* See also Turner, *E. E.*
- Leffer, *L. G.*, and Naaml. Vennoots. Internationale Qeep Co., manufacture of soft soaps, (P.), B., 728.
- Leffler, *J. A.*, velocity of reaction between carbon dioxide and different species of carbonised fuels, B., 545.
- Lefort des Ylouses, *G.*, granulated cyanamide and dicyanodiamide, B., 792.
- Le Franc, *L.*, and Lefranc & Cie, manufacture of butyric acid and other aliphatic acids, (P.), B., 375*.
- Lefranc & Cie. See Le Franc, *L.*
- Lefrou, *G.*, anticoagulant power of certain dyes and arsenic compounds, A., 277.
- Leftwich, *J. H.*, process and product of treating molasses, (P.), B., 858.
- Legé, *E.*, preparation of synthetic petroleum hydrocarbons, (P.), B., 516.
- Legeler, *E.*, melting substances in jacketed vessels for carrying out chemical reactions, (P.), B., 463.
- Legeler, *E.*, and Esselmann, *P.*, continuous purification of crude carbon disulphide, (P.), B., 522.
- Legendre, *R.*, use of p_H colorimetric reagents for the recognition of green or dry wood, B., 412.
- Legendre, *R.* See also Chemin, *E.*
- Legg, *D. A.* See Commercial Solvents Corporation.
- Legg, *H. B.* See Dunman, *H. B.*
- Le Guyon, *R. F.*, titration of barium ions, A., 223.
- semi-micro-method of determining orthophosphoric acid applied to urine, A., 372.
- micro-titration of chromic and barium ions based respectively on the disappearance or the appearance of the yellow colour due to chromic ions, A., 537.
- Lehigh Coal & Navigation Co. See Wagel, *S. R.*
- Lehký, *R.*, centrifugal machine [for sugar], (P.), B., 612.
- Lehman, *A.* See Lynn, *E. V.*
- Lehmann, *G.* See Gall, *H.*
- Lehmann, *J. F.*, absorption of slow cathode rays in various gases, A., 914.
- Lehmann, *J. F.*, and Osgood, *T. H.*, total ionisation due to the absorption in air of slow cathode rays, A., 914.
- Lehmann, *W. M.* See Agde, *G.*
- Lehmstedt, *K.*, nitro- and amino-acridines, A., 776.
- glycosine, $C_6H_6N_2$, of Debus, *I.*, A., 979.
- determination of secondary nitrosamine groups, A., 1062.
- Lehnartz, *E.* See Embden, *G.*
- Lehner, *A.*, and Jäger, *A.*, influence of tension and conditions of coagulation on the dyeing properties of viscose silk, B., 775.
- Lehnhoff-Wyld, *F.*, manufacture of organic arsenic compounds, (P.), B., 573.
- Lehnig, *M.* See Loos, *K.*
- Lehreke, *H.*, and Roessler & Hasslacher Chemical Co., evolution of hydrocyanic acid from cyanides, (P.), B., 217, 364.
- Lehrer, *E.* See Gerlach, *W.*
- Leibowitz, *J.* See Neuberg, *C.*, and Pringsheim, *H.*
- Leibsohn, *E.* See Fromm, *E.*
- Leide, *A.*, measurements in the K-series of X-ray spectra, A., 3.
- Leigh-Clare, *J. L.*, effect of excessive irradiation with ultra-violet light upon the growth of rats, A., 382.
- search for vitamin-D in the diatom *Nitzschia closterium* (W. Sm.), A., 488.
- vitamin-D content of the stomach oil of the Australasian petrel (*Australata lessoni*), A., 796.
- Leighton, *A.*, and Williams, *O. E.*, basic viscosity of ice-cream mixes, B., 375.
- Leighton, *A.* See also Watson, *P. D.*
- Leighton, *P. A.* See Forbes, *G. S.*
- Leimbach, *G.*, determination of potassium in mixtures of salts, especially in Chilo saltpetre, by the perchlorate method, B., 874.
- Leinbach, *L. R.* See Frey, *R. W.*
- Leipunski, *A.* See Kondratév, *V.*, and Pavlov, *V.*
- Leiss, *C.*, quartz double monochromators and a simple new fluorite vacuum spectrograph for the Schumann region, A., 909.
- Leitch, *J. C.*, melezitose and turanose, A., 450.
- Leitch & Co., Ltd., *J. W.*, and Everest, *A. E.*, manufacture of nitro-derivatives of aromatic amines, (P.), B., 101.
- dyeing of acetylcellulose, (P.), B., 105.
- reduction of pigment colours and lakes to a finely-divided state, (P.), B., 609.
- Leitch & Co., Ltd., *J. W.*, Everest, *A. E.*, and Wallwork, *J. A.*, vat dyeing, (P.), B., 840.
- Leites, *S.*, fat and lipin metabolism. I. Alimentary lipæmia. II. Alimentary cholesterolemia. III. Alimentary lecithinæmia, A., 695.
- fat and lipin metabolism. IV. Rôle of the reticulo-endothelial system. V. Rôle of the spleen, A., 898.
- Leithe, *W.* See Späth, *E.*
- Leitner, *H.*, electric accumulator, (P.), B., 391.
- [active material for] electric accumulators, (P.), B., 302.
- Leitz, *E.*, polarimeters, (P.), B., 690.
- Lejeune, *G.*, electrometric methods for study of the oxidisability of organic substances. I. and II., A., 736, 833.
- Lellep, *O.*, and International Nickel Co., conversion of matte containing nickel, (P.), B., 448.
- Lemal, *L.*, determination of titanin acid in refractory earths, B., 602.
- Lemale, *P. C.*, concentration of liquids by vaporisation at very low temperatures, (P.), B., 241.
- Lemanczyk, *K.*, absorption of potassium salts by the root system of plants, A., 1228.
- Lematte, *L.*, Boinot, *G.*, and Kehane, *E.*, determination of total sulphur in [animal] tissues and in foods, B., 890.
- Lemay, *L.* See Austerweil, *G.*
- Lemme, *W.* See Hofmann, *K. A.*
- Lemmermann, *O.*, Fresenius, *L.*, and Gerdum, *E.*, action of some fertilisers of different physiological and chemical reaction, on the reaction of the soil and on crop yields, B., 611.
- Lemmermann, *O.*, Fresenius, *L.*, and Lesch, determination of the manurial requirement of soils for phosphate by means of the citrate method, B., 453.
- Lemmermann, *O.*, and Jessen, *W.*, phosphoric acid requirements of German arable soils, B., 198.
- Lemoigne, *M.*, origin of the products of dehydration and polymerisation of β -hydroxybutyric acid; hydroxybutyric fermentation, A., 700.
- Le Monières de Sagazan, *Y.*, manufacture of sulphuric acid, (P.), B., 876.
- Leindle, *L.*, velocity of action of various narcotics, A., 1219.
- Lendrich, *K.*, and Mayer, *Fr.*, occurrence of arsenic and lead on fruit after spraying, B., 712.
- presence of arsenic, lead, and copper in fruit and fruit products as a result of spraying, B., 954.
- Lenher, *S.*, adsorption of benzene vapour on the plane surfaces of glass, fused quartz, and platinum; isosteric heat of adsorption of benzene on platinum, A., 198.
- Lenher, *S.*, and McHaffie, *I. R.*, free energy change in adsorption at a solid-vapour interface, A., 626.
- Lenk, *E.*, quantitative determination of gelatin, B., 86.

- Lenk, E., standardised bacterial preparations in the leather industry, B., 284.
- Lennard-Jones, J. E., pressure of gaseous mixtures, A., 405.
- Lennard-Jones, J. E., and Cook, W. R., equation of state of a gaseous mixture, A., 727.
- Lennard-Jones, J. E., and Dent, (Miss) B. M., theoretical determinations of the structure of carbonate crystals. I. and II., A., 96.
- theoretical determinations of crystal parameters, A., 715.
- Lennox, W. G., metabolism during fasting in the human subject, A., 170.
- Lennox, W. G., and Bellinger, M., stimulation of sugar-regulating mechanism as shown by duplicate blood-sugar curves, A., 693.
- comparison of blood-sugar curves following ingestion and intravenous injection of dextrose, A., 986.
- blood-sugar curves in non-diabetic subjects, A., 1216.
- Lennox, W. G., O'Connor, M., and Bellinger, M., chemical changes in the blood during fasting in the human subject, A., 72.
- Leo, H. T., manufacture of dry-powdered jelly base containing pectin and sugar, (P.), B., 923.
- Leo, M. See Auwers, K. von.
- Leo, W., certain regions in the helium spectrum, A., 82.
- Léon, A. See Ranedo, J.
- Leon, M., and Lister, W. N., oxidation of rubber, B., 788.
- Leonard, A. P., manufacture of sugar, (P.), B., 122*.
- Léonard, O., production of beryllium oxide, (P.), B., 330.
- Leonhards, R. See Nolte, O.
- Leonov, P. P. See Rutovski, B. N.
- Leopold, F. B., [lime]-mixing apparatus, (P.), B., 142.
- Leopold, G. H., spontaneous souring of milk in the electric field and in thunderstorms, B., 827.
- Leopold, H. See Fuchs, W.
- Leopold, H. G., and Johnston, J., vapour pressure of the saturated aqueous solutions of certain salts, A., 938.
- Lepage, E. See Grison, M.
- Lepage, G. See Terroine, F.
- Lepage, A., and Levoux, E., process and apparatus for charging a liquid with radioactive emanations or gases, (P.), B., 434.
- Le Pelley, R. H. See Goodwin, W.
- Lepetit, G. See Schenck, R.
- Lepp, H. von. See Biesalski, E.
- Lepper, E. H., and Martin, C. J., protein error in determining p_H with neutral red and phenol-red, A., 534.
- Lepper, E. H., and Martland, M., variations in the p_H and hydrogen carbonate of the plasma and of the alveolar carbon dioxide during forced breathing, A., 892.
- influence of meals on the rise of the hydrogen-ion concentration of the blood during hyperpnea, A., 892.
- Lepper, H. A. See Waterman, H. C.
- Lepper, W. See Mach, F.
- Leppert, H., pentamethylenetetrazole ("cardiazole"). VI. Elimination of cardiazole by the kidneys, A., 792.
- Leprestre, R. See Miolati, A.
- Lerberghe, G. van, velocity of physico-chemical reactions, A., 424.
- Lerciu, A. See Lozai, A.
- Le Rolland, F., measurement of hardness by the pendulum, B., 46*.
- Leroudier, H., manufacture of oleomargarine, (P.), B., 503.
- Le Rouge, J., and L'Air Liquide, Soc. Anon. pour l'Étude et l'Exploit. des Proc. G. Claude, separating gaseous mixtures, (P.), B., 400*.
- separation of the elements of air or of other gaseous mixtures by liquefaction and rectification, (P.), B., 736*.
- Le Roy, P. M., and Beaumont, G., absorption refrigerating apparatus, (P.), B., 320.
- Lerrigo, A. F., and Williams, A. L., determination of saccharin colorimetrically and by the ammonia process, B., 616.
- Lesch. See Lemmermann, O.
- Leschewski, K. See Hofmann, K. A.
- Lescœur, L. See Desgrez, A.
- Leslie, E. H., and Good, A. J., vaporisation of petroleum, B., 401.
- Leslie, E. H., and Tunison, B. R., process of carrying out chemical reactions with liquids [cracking of hydrocarbons], (P.), B., 868.
- Leśniński, W., and Czernski, T., linear dimethylquinacridone, A., 577.
- Lespieau, R., diacetylenic acyclic hydrocarbons, $C_{13}H_{10}$ and $C_{20}H_{14}$, A., 337.
- acetylenic erythritol [$\Delta\gamma$ -hexinene- $\alpha\beta\epsilon$ -tetrol], $HO\cdot CH_2\cdot CH(OH)\cdot C\equiv C\cdot CH(OH)\cdot CH_2\cdot OH$, A., 643.
- Lespieau, R., and Deluchat, Δ^{an} -octadi-inene, A., 39.
- Lessells, J. M., fatigue strength of hard steels, B., 445.
- Lesser, E. F., liver diastase, A., 1111.
- Lesser, R., and Gad, G., action of oxalyl chloride on homologues of naphthalene and 1:6-dimethoxynaphthalene, A., 247.
- Lessheim, H., Meyer, J., and Samuel, R., relation between complex formation and the structure of the central atom, A., 714.
- co-ordinated linkings and atomic structure, A., 921.
- Lessheim, H., and Samuel, R., electron configuration in atoms. I. and II., A., 88, 494.
- Lessing, R., cleaning of carbonaceous materials, (P.), B., 866.
- Lessnig, R., determination of cerium, A., 746.
- Lesszynski, W., sensitisation of photographic plates, B., 125.
- studies on the Herschel effect, B., 174.
- Letort, Y. M., and Borde, R. C. F., photographic process and papers, (P.), B., 829.
- process of colour photography, (P.), B., 830.
- Letourneur-Hugon, and Valin, preservation of milk samples with formaldehyde and trioxymethylene, B., 91.
- Letschert, A., columnar hollow shapes for filling absorption towers, etc., (P.), B., 207.
- Leu, A., separation of molecular streams in magnetic fields, A., 397.
- Leucaditis, G. See Dosios, C.
- Leuchs, F., and Winthrop Chemical Co., Inc., anti-spasmodics, (P.), B., 893.
- Leuchs, K., manufacture of artificial silk, (P.), B., 165.
- Leuchs, K. See also Deutsche Zellstoff-Textilwerke G.m.b.H.
- Leuchtenberg, W. E., removal of hydrogen sulphide from coal- or water-gas, (P.), B., 626.
- Leuchtenberg, W. E. See also Raffloer, E.
- Leulier, A., and Pinet, L., chlorination and bromination of hydroxybenzoic acids with a mixture of halogen acid and hydrogen peroxide, A., 1186.
- Leulier, A. See also Mouriquand, G.
- Leupold, H., photo-electric investigations with ammonia-charged platinum, A., 498.
- Leuthardt, F., buffering capacity and plant juices, A., 937.
- Leutheusser, E. See Guthier, A.
- Levaditi, C., Nicolau, (M.), Nicolau, (Mme.), and Manin, Y., tellurium and its curative action on syphilis, A., 587.
- Levaditi, C. See also Fournier, L.
- Levene, P. A., aspect of the biochemistry of sugars, A., 1225.
- Levene, P. A., and Bass, L. W., action of hydrazine hydrate on uridine, A., 261.
- effect of ionisation on optical rotation. III. The $\beta\epsilon$ -anhydro-sugar acids, A., 1171.
- racemisation. V. Action of acid and alkali on gelatin, A., 1212.
- Levene, P. A., Bass, L. W., Steiger, R. E., and Bencowitz, I., effect of ionisation on optical rotation. II. Amino-acids, polypeptides, and ketopiperazines, A., 625.
- Levene, P. A., and Bencowitz, I., acetylated monosaccharides. III. Penta-acetyl- α -mannose, A., 649.
- influence of solvent and of concentration on optical rotation of penta-acetylglucose and penta-acetylmannose, A., 858.
- rotatory dispersion of the penta-acetates of α - and β -glucose and of α - and β -mannose, A., 960.
- Levene, P. A., and Haller, H. L., configurational relationships of α -hydroxybutyric and lactic acids, A., 1053.
- Levene, P. A., Haller, H. L., and Walti, A., configurational relationships of butan- γ -ols and pentan- δ -ols, A., 643.
- Levene, P. A., and Meyer, G. M., pentamethyl- d -mannose, pentamethyl- d -galactose, and their dimethylacetals, A., 1174.
- diisopropylideneglucofucose. IV. α - and β -Isomerides of $\gamma\epsilon$ -tri-methylmethylglucoside and of $\beta\gamma\epsilon$ -tetramethylmethylglucoside, A., 1174.
- Levene, P. A., and Mikeska, L. A., substitution by halogen of the hydroxyl group of secondary alcohols, A., 53.
- Levene, P. A., Mori, T., and Mikeska, L. A., Walden inversion. X. Oxidation of α -thiolcarboxylic acids to sulphonic acids; Walden inversion in the series of α -hydroxycarboxylic acids, A., 1171.
- Levene, P. A., and Rolf, I. P., preparation of lecithin, A., 586.
- preparation of cephalin, A., 1104.

- Levene, P. A., and Sobotka, H., deamination of γ -aminohexoses, A., 230.
- lactone formation of lacto- and malto-bionic acids and its bearing on the structure of lactose and maltose, A., 340.
- Levene, P. A., and Walti, A., action of ammonia on propylene oxide, A., 343.
- Walden inversion. IX. Mechanism of hydrolysis of optically active propylene oxides, A., 644.
- polymerisation products of propylene oxide and of glycidol, A., 1166.
- Levene, P. A., Walti, A., and Haller, H. L., configurational relationship of *d*-butan- β -ol to *d*-lactic acid, A., 337.
- Levene, P. A., and Wintersteiner, O., lactone formation of galactarabonic and melibiononic acids and its bearing on the structure of lactose and of melibiose, A., 1171.
- Levene, P. A. See also Simms, H. S.
- Lever, J. See Rushton, J. L.
- Lever Bros., Ltd., and Cloudsley, J. L., apparatus for separating or filtering liquids from materials containing them, (P.), B., 129.
- Levesley, A. S., critical potentials of nitrogen and the nature of active nitrogen, A., 1008.
- Levi, G. R., hexagonal structure of thallium crystals, A., 1013.
- Levi, G. R., and Faldini, M., depressing action of rhodium and of iridium on platinum in the catalysis of sulphur trioxide, B., 651.
- Levi, G. R., and Fontana, C., grating constant of purple of Cassius, A., 1128.
- Levi, G. R., and Reina, A., peptisation of metathoria, A., 414.
- Levi, L., determination of copper in specially treated fabrics, B., 136.
- Levi, M., and Gilbert, L. F., systems boron trioxide-sulphur trioxide-water and boron trioxide-phosphorus pentoxide-water, A., 1030.
- Levi, T. G. See Bruni, G.
- Levin, A. A. See Meyer, C. F.
- Levin, C. See Calico Printers' Assoc., Ltd.
- Levin, E. See Rowe, F. M.
- Levin, L. See Muchin, G. E.
- Levin, S. J. See Cohen, P.
- Levine, H., and Smith, A. H., growth on diets rich in fat, A., 480.
- ketosis in the rat, A., 1218.
- Levine, L. See Clark, G. W.
- Levinsohn, S. S., gas analysis apparatus, (P.), B., 592.
- Levinson, A., comparative sugar content of blood and of cerebrospinal fluid in various conditions, A., 1217.
- Levoux, E. See Lepape, A.
- Levsehlin, V. L., polarised fluorescence of dyes in colloidal solutions, A., 109*.
- extinction of the fluorescence of dyes in solid and in liquid solutions, A., 711.
- Levschin, V. L. See also Vavilov, S. J.
- Levy, F., bituminous emulsions [for road-making], (P.), B., 412.
- Levy, F. See also Colas Products, Ltd.
- Levy, G. J., and Hollywood Chemical Co., recovery of metals [silver] from solutions, (P.), B., 542.
- Lévy, (Mlle.) J., and Lagrave, R., dehydration in the trisubstituted secondary-tertiary glycol series (migration of the benzyl radical), A., 872.
- Lévy, (Mlle.) J., and Sâras, M., isomerisation of some ethylene oxides of the general formula $\text{Ph} \cdot [\text{CH}_2]_n \cdot \text{CH} \cdot \text{CH}_2 \cdot \text{O}$, A., 662.
- Lévy, (Mlle.) J., and Weill, P., reality of the semipinacolinic transposition; study of anisyl methyl ethyl glycol, A., 880.
- Lévy, (Mlle.) J. See also Tiffeneau, M.
- Levy, L., transmitting electric charges through a gaseous medium, (P.), B., 145.
- Levy, L. A., granules for the absorption of [acidic] gases, (P.), B., 907.
- Levy, L. A., and Silberrad, O., manufacture of cellulose acetate, (P.), B., 296.
- Lévy, M. See Terrisse, H.
- Levy, P. See Aschan, O.
- Levy, S. See Gardner, H. A.
- Levy-Diem, H., production of washable and fadeless ornamented materials, (P.), B., 184.
- Lew, C., metaldehyde, B., 692.
- Lewes, J. H., and Wells, H. G., immunological behaviour of mucoids, A., 1103.
- Lewicka, E., hydroxyl derivatives of naphthacridonequinone and of benzodiacyridonequinone, A., 575.
- Lewin, J. See Baudouin, A.
- Lewin, T., refining brass and bronze secondary metals and their residues, (P.), B., 370*.
- Lewin, T., and Lewin, W., smelting furnace, (P.), B., 784.
- Lewin, W. See Lewin, T.
- Lewis, A. H., separation of fatty acids, A., 39.
- Lewis, B., photochemical decomposition of hydrogen iodide, A., 428.
- unimolecular decomposition of azomethane; the adequacy of activation by collision, A., 835.
- function of water vapour in the photosynthesis of hydrogen chloride, A., 1040.
- Lewis, C. P., separation of minerals by froth-flotation, (P.), B., 256*.
- Lewis, C. P., and Minerals Separation North American Corporation, froth-flotation concentration of ores, (P.), B., 168.
- Lewis, E. H., silica gel as a medium for drying blast, B., 968.
- Lewis, E. J., detempering steel, (P.), B., 15.
- Lewis, F. D., centrifugal amalgamator and concentrator, (P.), B., 682.
- Lewis, F. D. See also Courtaulds, Ltd.
- Lewis, G. C., filtration of liquids [water], (P.), B., 206.
- Lewis, G. N., conservation of photons, A., 88.
- Lewis, G. N., and Mayer, J. E., disproof of the radiation theory of chemical activation, A., 948.
- Lewis, G. T., and Lewis, H. B., metabolism of sulphur. XII. Value of cystine peptides and peptide anhydrides for nutrition of the rat, A., 792.
- metabolism of sulphur. XIII. Effect of elementary sulphur on growth of white rat, A., 1108.
- Lewis, H. B. See Izume, S., Lewis, G. T., Wiley, F. H., and Wilson, R. H.
- Lewis, H. F., and Fleming, J. W., preparation of β -dimethylhexane, A., 440.
- Lewis, H. F., and Fordyce, C., condensations with alkylene bromides, A., 454.
- Lewis, H. F., and Yohe, G. R., preparation of octane, A., 440.
- Lewis, J. H. See Wells, H. G.
- Lewis, J. M., hydrogen electrode, A., 34.
- Lewis, J. S., low-temperature oxidation of hydrocarbons, A., 851.
- Lewis, J. W., and Atlantic Refining Co., petroleum-treating apparatus, (P.), B., 181.
- Lewis, J. W., jun., and Atlantic Refining Co., [cracking] treatment of petroleum, (P.), B., 741.
- Lewis, P. S., heat denaturation of proteins. IV. Free basic and acidic groups of fresh and denaturated haemoglobin, A., 270.
- Lewis, R. A., cooling tower, (P.), B., 639.
- apparatus for spraying or atomising liquids or for disseminating gases, (P.), B., 640.
- Lewis, W. C. See Huston, R. C.
- Lewis, W. K., and Daniel, C. F., mass-action effects in the interaction of gelatin and acids, A., 622.
- Lewis, W. K., and Humble Oil & Refining Co., distillation of easily-decomposable substances, (P.), B., 6.
- Lewis, W. K., and Ries, E. D., influence of reaction rate on operating conditions in contact sulphuric acid manufacture. II., B., 700.
- Lewis, W. K., and Standard Development Co., distillation apparatus, (P.), B., 623.
- Lewis, W. K. See also Loomis, N. E.
- Lewis, W. L. See Gustus, E. L.
- Lewkowitsch, E., ultra-violet absorption spectra of some fatty oils, B., 660.
- Ley, H., optical absorption and constitution of complex salts, A., 1009.
- Ley, H., and Temme, T., optically active, internally complex salts, A., 137.
- Ley, H., and Volbert, F., absorption measurement in the ultra-violet by photographic photometry, A., 1121.
- Leyst, C. See Lymn, A. H.
- Li, C. P. See Wu, S.
- Li, S. H., and Parr, S. W., oxidation of pyrites as a factor in spontaneous combustion of coal, B., 66.
- Li, Y. H., theory of tanning, B., 853.
- Liais, L., manufacture of agglomerated fuel, (P.), B., 627*.
- Libbey Glass Manufacturing Co., method and apparatus for producing a glass article [by severance], (P.), B., 553.

- Libman, E. E., surface tension of molten metals. I. Copper, A., 929.
- Librach, I. See Szperl, L.
- Lichte, R. See Diels, O.
- Lichtenberger, T., and Kaiser, L., manufacture of pure white and finely-distributed barium and calcium sulphates, (P.), B., 947.
- Lichtenberger, T. See Salzwirk Heilbronn Akt.-Ges.
- Lichtenecker, K., theory of mixed substances and the logarithmic mixture rule, A., 189.
- connexion between heat of fusion and specific heat, A., 818.
- Lichtenhahn, T., Lüscher, E., Steiger, H., and Elektrizitätswerk Lonza, production of metaldehyde, (P.), B., 173*.
- Lichtenstein, I. See Zawadzki, J.
- Lichtenstern, R. See Allchemin Allgemeine Chemische Industrie Akt.-Ges.
- Liebe, H. C. See Nichols, J. B.
- Lieben, F., destruction of amino-acids by irradiation, A., 655.
- effect of irradiation on the tyrosine and tryptophan contained in protein, A., 1099.
- Lieber, A. See Valentin, H.
- Liebig, H., experimental lead hæmatoporphyria, A., 1106.
- Liebknecht, O., and Deutsche Gold- & Silber-Scheideanstalt vorm. Roessler, separation of hydrocyanic acid from gaseous mixtures, (P.), B., 75*.
- Liebknecht, O., and Roessler & Hasslacher Chemical Co., separating hydrogen cyanide, ammonia, and carbon dioxide from gas mixtures, (P.), B., 107.
- manufacture of hydrocyanic acid, (P.), B., 440.
- Liebrecht, A., and Chemisch-Pharmazeutische Corporation, Bad Homburg, manufacture of quinine solutions suitable for subcutaneous injections, (P.), B., 956*.
- Liebrecht, A. See also Chemisch-Pharmazeutische Akt.-Ges., Bad Homburg.
- Liebreich, E., electrolytic deposition of chromium from aqueous chromic acid solutions, A., 322.
- Lieder, H. See Grube, G.
- Liehr, W. See Dörle, M.
- Liempt, J. A. M. van, colour of copper-nickel alloys, A., 196.
- limits of resistance of tungsten-molybdenum mixed crystals, A., 196.
- Liempt, J. A. M. van. See also De Boer, J. H., and Geiss, W.
- Lienhard, H. See Frei, W.
- Liepatov, S., adsorption. II. Sorption and heterogeneous chemical equilibrium, A., 16.
- chemical reactions and sorption phenomena. II., A., 407.
- viscosity and hydration. II. Ageing and synæresis, A., 413.
- chemical reactions and sorption phenomena. III. New class of heterogeneous chemical reaction, A., 732.
- viscosity and hydration of dye solutions, A., 934*.
- Liesegang, R. E., permeability of collodion membranes, A., 19.
- a tanning accelerator, B., 284.
- Lieske, R., Schulemann, W., Bonrath, W., and Winthrop Chemical Co., Inc., [plant] disinfectant, (P.), B., 887.
- Lieske, R., Thauss, A., Bonrath, W., and Winthrop Chemical Co., Inc., dusting powder adherent to plants, (P.), B., 311.
- Lieske, R. See also I. G. Farbenind. A.-G.
- Lifschitz, I., Becquerel effect, A., 423.
- Lifschitz, I., and Hooghoudt, S. B., Becquerel effect, A., 942.
- Lifschütz, I., fate of cholesterol in the animal organism, A., 791.
- bleaching wool fat, (P.), B., 563.
- Liggett, M. J. See McLennan, J. C.
- Liggett, W. K., and Jeffrey Manufacturing Co., pulverising machine, (P.), B., 575.
- Light, L., production of aldehyde-amine condensation products, (P.), B., 822.
- Lighton, C., theory and practice of the Carbro process, B., 861.
- Lüpfert, W. J., and General Chemical Co., manufacture of calcium arsenate [insecticide] products, (P.), B., 536.
- Lilienfeld, L., manufacture of fluorescent oil, (P.), B., 518*.
- manufacture of plastics, (P.), B., 519.
- manufacture of artificial materials from viscose, (P.), B., 745.
- manufacture of cellulose compounds, (P.), B., 964*.
- manufacture of artificial materials, (P.), B., 964*.
- Lilienshtern, M. F., antagonistic influence of hydrogen and calcium on the development of *Saprolegnia*, A., 1225.
- Lilienthal, (Frl.) D. See Brüche, E.
- Liljenroth, F. G., oxidation of ammonia, (P.), B., 251, 907*.
- production of a mixed manure containing phosphoric acid and nitrogen, (P.), B., 826.
- Liljenroth, F. G., Larsson, M., and Phosphorus-Hydrogen Co., method of producing hydrogen, (P.), B., 108*.
- Lillie, R. S., activation of starfish eggs by acids. II. Action of substituted benzoic acids and of benzoic and salicylic acids as influenced by their salts, A., 696.
- Lilly & Co., E., treating bacteria, their products and toxins, and serums obtained from the treated bacteria or toxins, (P.), B., 670.
- Limaye, B. D., synthesis of coumaryl-4-acetic acid, A., 974.
- Limbouurg, H., alloys for use as platinum substitutes, (P.), B., 527.
- Limburg, H., emulsions. I., II., and III., A., 17, 109.
- Limmer, F., action of matt-salt (acid ammonium fluoride) on gelatin films, B., 619.
- Limpächer, R. See Grün, H.
- Lin, K. H., shark's fins, A., 168.
- composition of the muscle of the crab, *Grapsus nankin*, A., 586.
- Lin, K. H., and Chen, C. C., analysis of the sea-slug, *Stichopus japonicus*, Solenka (Hai-shen), A., 691.
- Lin, K. H. See also Wu, H.
- Linch, F. W. See British Dyestuffs Corporation, Ltd., and Rodd, E. H.
- Linck, G., and Calsow, G., relation between kaolin and clays, A., 38.
- Lind, O. See Willstätter, R.
- Lind, S. C., and Bardwell, D. C., influence of an anti-knock compound in a gas-ion oxidation, B., 384.
- Lind, S. C., and Glockler, G., chemical effect of electric discharge in ethane, A., 1039.
- Lind, S. C. See also Nyswander, R. E.
- Lind, S. G. See Kullgren, C. F.
- Lindberg, S. See Odén, S.
- Lindblom, S. See Borelius, G.
- Linde, J. O. See Johansson, C. H.
- Lindeman, T., and Hafstad, M., determination of cerium, A., 536.
- Lindemann, H., Könitzer, H., and Romanoff, S., benzisooxazoles [indoxazens], A., 980.
- Lindemann, H., and Krause, H., 7-amino-derivatives of benzotriazole and benzimidazole, A., 469.
- Lindemann, H., and Pickert, W., formation and constitution of benzisooxazoles [indoxazens], A., 980.
- Lindemann, H., and Schultheis, W., 2-hydroxyindoxazen (benzisooxazolone), A., 262.
- Lindemann, H., and Tschang, K. T., N-ethers of oximes, A., 1074.
- Lindemann, H. See also Schmalfuss, H.
- Lindemann, O., making mortars and cements, (P.), B., 190.
- Linden, H. See Chapman, A. C.
- Linden, (Gräfin) M. von, Meldau, R., and Deutsche Luftfilter Bauges. m.b.H., filters for purifying and sterilising air and gases, (P.), B., 768.
- Lindenbaum, S., phosphorus compounds of plants. III. Solubility of phosphorus compounds of oat flour and ability of phytic acid to combine with protein substances of flour, A., 1228.
- Linder, E. G., thermo-electric effect in single-crystal zinc, A., 505.
- Linderman, G. B., jun., and American Meter Co., apparatus for determining the specific gravity [of gases], (P.), B., 898.
- Linderström-Lang, K., state and stability of colloid solutions, A., 109.
- Linderström-Lang, K. See also Olsen, C., Sørensen, S. P. L., and Waldschmidt-Leitz, E.
- Lindh, F. O. M. See La Cour, J. L.
- Lindman, E. I., producing cellular or porous concrete, (P.), B., 110.
- production of porous concrete, (P.), B., 524.
- Lindner, F. See Fischer, Hans.
- Lindner, J., sources of error in organic elementary analysis. I. Lead peroxide, A., 66.
- sources of error in organic elementary analysis. II. The combustion tube, A., 166.
- sources of error in organic elementary analysis. III. Rubber, cork, and tap lubricants, A., 269.
- determination of carbonic acid by precipitation as barium carbonate and titration of the excess of alkali, A., 1161.
- Lindner, J., and Bruhin, J., preparation of 4- and 5-nitro- and -amino-hydrindene, A., 352.

- Lindner, J., and Hernler, F., volumetric determination of carbon dioxide in carbonates, B., 408.
- Lindner, K., chlorides of bivalent molybdenum, tungsten, and tantalum. V. Tritantalum hexachloride or tantalum trichloride? A., 327.
- space configuration of the halogen derivatives of bivalent molybdenum, tungsten, and tantalum, A., 611.
- Lindner, K., and Zickermann, J., determination of higher alcohols, particularly hydrogenated phenols, in presence of some organic solvents, especially hydronaphthalenes. II. Determination of methylhexalin in presence of tetralin, B., 713.
- Lindner, K. See also *Chemische Fabrik Milch Akt.-Ges.*
- Lindner, W., checker work for regenerators of furnaces fired by gas producers, (P.), B., 321.
- Lindow, C. W., and Peterson, W. H., manganese content of plants and animals, A., 1214.
- Lindsay, G. A. See Chamberlain, K.
- Lindsay, R. B., carbon atom model and the structure of diamond, A., 501.
- "pendulum" orbits in atomic models, A., 808.
- Lindsay, W. G., and Celluloid Co., X-ray protective material, (P.), B., 29.
- [non-inflammable] cellulose composition, (P.), B., 214, 675.
- cellulose composition [containing $\beta\beta'$ -dichloroethyl ether], (P.), B., 388.
- Lindström, B. See Virtanen, A. I.
- Lindstrom, E. W. See Cole, L. J.
- Lindstrom, R. S., cement composition, (P.), B., 603.
- Line, A. J., solder for aluminium or its alloys and process for using same, (P.), B., 80.
- Linebarger, C. E., composition for hydrometric units, etc., (P.), B., 2.
- electric storage batteries, (P.), B., 226.
- Ling, A. R., recent advances in our knowledge of starch, A., 860.
- Ling, A. W., uniformity in sugar beet analysis, B., 686.
- Ling, E. R. See Cranfield, H. T.
- Ling, S. M. See Wu, H.
- Ling, T. T. See Toch, M.
- Lingelsheim, A. von, lecture experiment on the chemistry of chlorophyll, A., 80.
- toxicity of flax liliol (*Lolium remotum*, Schrank), A., 799.
- Link, A. See Hoz, H.
- Link, L. See Weller, D. R.
- Linnell, W. H., and Randle, D. G., extraction of ergot. I. Liquid extract of ergot, B., 923.
- Linnell, W. H. See also Sinnatt, F. S.
- Linneweh, W., alleged occurrence of creatine and creatinine in soil and in plants, A., 1228.
- Linneweh, W. See also Ackermann, D., and Keil, W.
- Linsbauer, A., decolorisation of thin-juice [in beet sugar manufacture] by activated carbon, B., 730.
- Linsenmeier, K. See Busch, M.
- Linstead, F. See Martin, G.
- Linstead, R. P., three-carbon system. XI. Mechanism of isomeric change in unsaturated acids, A., 356.
- determination of mixtures of isomeric unsaturated compounds. I. Bromine additive method, A., 445.
- three-carbon system. XIV. Effect of conditions on isomeric change in unsaturated acids, A., 1167.
- Linstead, R. P., and May, C. J., determination of mixtures of isomeric unsaturated compounds. II. Iodometric methods, A., 1167.
- Linstead, R. P. See also Hugh, W. E.
- Linton, E. O., treatment of [hydrocarbon] oils, (P.), B., 7.
- Lio, G., action of powdered metals on blood-catalase, A., 1214.
- Liotta, P., citrus oils, B., 172.
- pulegone oil, B., 458.
- Lipinski, A. V., drying process for fuel, (P.), B., 865.
- Lipkin, L. See Kailan, A.
- Lipman, J. G., Blair, A. W., and Prince, A. L., effect of lime and fertilisers on the potash content of soil and crop, B., 587.
- Lipman Refrigeration Co. See Ireland, W. S.
- Lipp, P., Götzen, A., and Reinartz, F., "endocamphene," and its significance for the constitution of camphene, A., 568.
- Lipp, P., Küppers, P., and Holl, M., camphene and the Friedel-Crafts synthesis of ketones, A., 883.
- Lipp, P., and Reinartz, F., constitution of isocampholic acid, A., 1185.
- Lippmayer, M. See Papesch, O.
- Lippert, F. A., furnace, (P.), B., 175.
- Lippmann, E. von. See Bergmann, M.
- Lipsett, S. G., Johnson, F. M. G., and Maass, O., surface energy and heat of dissolution of solid sodium chloride, A., 520.
- rotating adiabatic calorimeter; surface energy and heat of dissolution of sodium chloride. II., A., 954.
- Liquid Air, Ltd. See Simonis, O.
- Liquier, (Mlle.) J., influence of concentration and the activity of the hydrogen ions on the rotatory power of aqueous solutions of electrolytes, A., 827.
- Liquier, (Mlle.) J., and Descamps, R., rotatory dispersion of asparagine in the ultra-violet, A., 295.
- Lister, F. V. See Lister & Cie, R.
- Lister, W. N. See Leon, M.
- Lister & Cie, R., and Lister, F. V., grinding mills, (P.), B., 831.
- Litharge Recovery Corporation, and Kinsel, A., separating metallic base reaction products from other derivatives in the treatment of hydrocarbon oils, (P.), B., 626.
- Litterscheid, F. M., application of luminescence phenomena to the investigation of impurities in milk, B., 613.
- Little, A. D., portable laboratory bench units, A., 641.
- Little, A. D., Inc., production of carburetted water-gas, (P.), B., 577.
- Little, A. D., Inc. See also Stevenson, E. P.
- Little, E., effect of gelatin on the titration curves of various acids, A., 743.
- Little, E. M., ionisation efficiency of ultra-violet light in caesium vapour, A., 914.
- Little, W. F., and Upjohn Co., manufacture of effervescent alkali compounds, (P.), B., 217.
- Littleton, J. T., jun., measurement of the softening temperature of glasses, B., 677.
- Littlewood, T. H. See Martin, G.
- Littman, Z., volumetric determination of selenium and tellurium in the same solution, A., 534.
- Littmann, E. R., and Commercial Solvents Corporation, synthetic resin and its manufacture, (P.), B., 340.
- Littmann, E. R. See also Commercial Solvents Corporation.
- Littmann, K. See Faust, O.
- Litvay, O. See Pollak, J.
- Liu, S. K., regulation of $[H^+]$ of the blood. I. Course of the potential of blood measured with the quinhydrone electrode. II. Influence of process of dissolution of quinhydrone on course of the potential. III. Potentials of serum, plasma, red blood-corpuscles, and haemoglobin solutions, A., 786.
- partition of serum-calcium into diffusible and non-diffusible portions, A., 985.
- Livingston, J. W., and Kyrides, L. P., manufacture of nitrobenzene, (P.), B., 809.
- Livingston, R. See Brönsted, J. N.
- Livingstone, R. See McCaig, D.
- Ljalikov, K., and Terenin, A., spectroscopic examination of light emitted during reaction, A., 89.
- Ljungdahl, W. K., apparatus for distillation, (P.), B., 67.
- Ljungdahl, W. K., and Cooper, A. W., apparatus for destructive distillation of organic matter, (P.), B., 67.
- kiln for destructive distillation of organic matter, (P.), B., 67.
- tunnel kiln, (P.), B., 67.
- Ljungström, B., [supply of air to] furnaces, (P.), B., 575.
- [economical firing of boiler] furnaces, (P.), B., 863.
- Llewellyn, W. B. See Spence, P., & Sons, Ltd.
- Lord y Gamboa, R., orthite from Arendal (Norway), A., 851.
- Lloyd, D. J. See Pickard, R. H.
- Lloyd, G. F., Campbell, F. H., and Commonwealth White Lead & Paints Proprietary, Ltd., manufacture of white lead, (P.), B., 609*.
- Lloyd, L. L., rancidification and oxidation of olive oil, B., 945.
- Lloyd, W. V. See Sand, H. J. S.
- Lobanov, N. See Birstein, G.
- Lobel, L., and Lefèvre, J., comparative study of a glycine and a metol-quinol developer, B., 461.
- Lobley, A. G. See Wiggin, H., & Co., Ltd.
- Locher, A., and Fierz, H. E., 1-nitro-2-methylantraquinone, A., 1191.
- Lochmüller, K. See Lüers, H.
- Lochte-Holtgreven, W. See Cario, G.
- Locke, A., and Main, E. R., isolation of substances with immune properties, A., 1103.
- Locke, F. M., glass, (P.), B., 523.
- Loekhart, L. B., and Standard Oil Co., lubricant for automotive engines, (P.), B., 807.

- Lockhart, *L. P.*, simple face mask for dusty industrial process, B., 831*.
- Loequis, *R.*, and Elghozy, *F.*, preparation of ethyl adipate and esters in general, A., 543.
- Locomotive Terminal Improvement Co. See Summers, *B. S.*
- Loeb, *L.*, and Bodansky, *O.*, specific effect of salts in extraction of urcase from amebocytes of *Limulus*, A., 484.
- Loeb, *L. B.*, gas ion mobilities in ether-hydrogen mixtures, A., 86.
ionic mobilities in ammonia-hydrogen mixtures and an anomalous effect of ammonia, A., 181.
- Loeb, *L. B.*, and Cravath, *A. M.*, molecular structure and relative mobilities of positive and negative gaseous ions, A., 1119.
- Loeb, *L. B.*, and Du Sant, *L.*, mobilities of ions in acetylene-hydrogen mixtures, A., 914.
- Loeb, *L. F.* See Ettisch, *G.*, Freundlich, *H.*, and Wreschner, *M.*
- Loeb, *R. F.*, and Benedict, *E. M.*, inorganic sulphates in human blood, A., 893.
- Loeb, *R. F.*, and Nichols, *E. G.*, diffusibility of calcium in human blood-serum, A., 584.
effects of dialysis and of ether extraction on diffusibility of calcium in human blood-serum, A., 1102.
- Löchner, *L.* See I. G. Farbenind. A.-G.
- Löfquist, *H.* See Benedicks, *C.*
- Loesch, *H. G.* See Douglas, *R.*, and Douglas Pectin Corporation.
- Loesche, *E. C.*, grinding mill, (P.), B., 432.
- Loeser, *A.* See Loevenich, *J.*
- Loessin, *A.*, manufacture of ceramic materials, building elements, and the like, from mud, (P.), B., 332.
- Loetze, *R.*, Bülow acetone reaction, A., 71.
- Loevenich, *J.*, and Loeser, *A.*, reactivity of halogenated hydrocarbons. I. Transformations with α - and β -bromonaphthalene, A., 348.
condensation of 2-nitrofluorene with aromatic aldehydes, A., 970.
- Loevenich, *J.*, Losen, *J.*, and Dierichs, *A.*, reactivity of halogenated hydrocarbons. II. Reactions with unsaturated alkyl halides, A., 538.
- Lövgren, *T.* See Euler, *H. von*, and Nilsson, *R.*
- Löw, *A.*, and Pfeiler, *R.*, fat metabolism. I., A., 903.
- Loew, *O.*, stimulation of plant growth by potassium iodide, B., 54.
- Loewe, *B.*, method of reeling-off silk cocoons, (P.), B., 138.
- Loewe, *H.* See Bergmann, *M.*
- Loewe, *S.*, and Lange, *F.*, determination of the hormone content of corpus luteum preparations; female sex-hormones. XI., A., 282.
- Loewe, *S.*, Lange, *F.*, and Spohr, *E.*, female sex-hormones (thelytropins). XII. Oestrus-producing substances (thelykinins) obtained from the vegetable kingdom, A., 282.
- Löwenbein, *A.*, and Schmidt, *Hans*, radical dissociation of derivatives of arylated succinic acids. III. 2:2'-Dihydroxytetra-arylsuccinodilactones, A., 1072.
- Loewi, *O.* See Dietrich, *S.*, and Häusler, *H.*
- Loewy, *A.*, effect of diminished atmospheric pressure on the liver, A., 792.
- Logan, *W. B.*, and Acme Products Co., Inc., production of purified rosin, (P.), B., 916.
- Logoz, *R.* See Kehrmann, *F.*
- Logue, *P.*, and Ranker, *I. T.*, leavening agents for self-rising flour, B., 202.
- Logue, *P.* See also Booth, *C. F.*
- Loh, *R. T. C.*, and Dehn, *W. M.*, reactions of thiocarbanilide, A., 49.
- Lohmann, *D.*, Blümner cracking process, B., 179.
- Lohmann, *H.*, production of tungsten and molybdenum carbide in lumps of various sizes, (P.), B., 108*.
production of mechanically very solid bodies of suitable shapes from carbides of metals having high fusing points, such as tungsten carbide, for tools and like articles, (P.), B., 303.
- Lohmann, *K.*, hydrolysis of glycogen by the diastatic enzyme of muscle, A., 75.
- Lohmann, *K.*, and Jendrassik, *L.*, colorimetric determination of phosphoric acid in muscle extracts, A., 69.
- Lohmann, *K.* See also Meyerhof, *O.*
- Löhöfer, *W.* See I. G. Farbenind. A.-G.
- Lohr, (Miss) *H. A.* See Heringa, *G. C.*
- Loiseleur, *J.*, influence of colloids on the reaction of a solution of electrolytes; hydrolysis of glucosides by animal membranes, A., 935.
- Loiseleur, *J.* See also Wolff, *J.*
- Lomakin, *A. A.*, apparatus for producing spark spectra of solutions, A., 89.
- Lomakin, *A. A.* See also Bogoiavlensky, *L. N.*
- Lomax, *C. S.* See Illinois Anthracite Corporation.
- Lomax, *E. L.* See Lucas, *O. D.*
- Lombard, *V.*, permeability of nickel to hydrogen; influence of the thickness of the metal, A., 616.
permeability of iron and platinum to hydrogen, A., 727.
- Lommel, *W.* See I. G. Farbenind. A.-G.
- London, *E. S.*, and Rabinkova, *L. M.*, distribution of oxygen in individual organs as shown by experiments with angiotomised dogs, A., 897.
- London, *F.* See Heitler, *W.*
- London Electric Wire Co. & Smiths, Ltd., and Wildy, *E. L.*, increasing the electric insulating properties of cotton fibre and like insulating materials, (P.), B., 699.
- Lones, *J. M.*, and Grant, *T. E.*, experimental brewings with new varieties of hops, B., 152.
- Long, *B.*, and Société Anonyme des Manufactures des Glaces & Produits Chimiques de St.-Gobain, Chauny, & Cirey, manufacture of glass, (P.), B., 908*.
- Long, *O. L.*, Willson, *F. G.*, and Wheeler, *T. S.*, manufacture of halogenohydrins, (P.), B., 347.
- Long, *C. W.* See Haworth, *W. N.*
- Long, *E. R.*, and Seibert, *F. B.*, active principle of tuberculin, A., 485.
- Long, *J. S.*, and Arner, *W. J.*, rate of molecular weight increase in the boiling of linseed oil, B., 82.
- Long, *J. S.*, Egge, *W. S.*, and Wetterau, *P. C.*, action of heat and blowing on linseed and perilla oils and glycerides derived from them, B., 754.
- Long, *J. S.*, Knauss, *C. A.*, and Smull, *J. G.*, boiling of linseed oil, B., 146.
- Long, *J. S.*, and Moore, *C. N.*, action of cathode rays on drying oils, B., 755.
- Long, *J. S.*, and Wentz, *G.*, rate of molecular weight increase in the boiling of linseed and tung oils, B., 82.
- Long, *M. L.* See Maey, *J. G.*
- Long, *W. R.*, [manufacture of] gluc, (P.), B., 791.
- Longchambon, *L.*, rotatory power of tartaric acid, A., 17.
constitution of the chalcodons and quartzines, A., 38.
- Longenecker, *L. S.*, refractory blocks [with tongue and groove] particularly for use in [roofs of] metallurgical furnaces, (P.), B., 881.
- Longhi, *C.*, acetylene and lamp-black from liquid hydrocarbons, e.g., petroleum, (P.), B., 436.
process and apparatus for splitting fluid hydrocarbons, (P.), B., 806.
- Longinescu, *G. G.*, and Bădescu, (Miss) *M. N.*, separation of hydrochloric from hydrobromic and hydriodic acids, A., 124, 434*.
- Longmuir, *P.*, direct production of pure iron, B., 781.
- Loo, *T. L.*, mutual effects between plant growth and the change of reaction of the nutrient solution with ammonium salts as the source of nitrogen, B., 950.
- Loofmann, *H.* See Pringsheim, *H.*
- Loomis, *A. G.*, and Walters, *J. E.*, calibration of resistance thermometers at the oxygen b. p. and the carbon dioxide sublimation point, A., 128.
- Loomis, *A. L.* See Hubbard, *J. C.*, and Wood, *R. W.*
- Loomis, *C. C.*, Kennedy, *A. L.*, and Kelp Products Co., method of moulding and hardening algin-containing material, (P.), B., 54.
- Loomis, *F. W.*, correlation of the fluorescence and absorption spectra of iodine, A., 187.
fluorescence and absorption spectra of iodine, A., 1124.
- Loomis, *N. E.*, Lewis, *W. K.*, and Standard Development Co., fractional distillation [of petroleum hydrocarbons], (P.), B., 931.
- Loomis, *N. E.* See also Howard, *F. A.*
- Loon, *J. van*, composition of parsley-seed oil, A., 853.
treatment of flour and other milling products, (P.), B., 265, 732*.
fermentation processes, (P.), B., 589.
utility of the Bertram method [for determination of the higher saturated fatty acids], B., 727.
- Loon, *J. van*. See also Steger, *A.*
- Loos, *K.*, Lehnig, *M.*, Henning, *C.*, and Dassdorf, *R.*, coating metal and like articles, (P.), B., 756.
- Looser, *J.* See Marwedel, *J. E.*
- Lopatina, *G.* See Korsakova, *M.*

- Lorand, E., action of sulphur monochloride on petroleum hydrocarbons, B., 514.
- Lorang, H. F. J., nitration of α -4-methoxy- and α -4-ethoxyphenyl- β -ethylcarbamide, A., 1182.
- Lorber, L., determination of acetoacetic acid, A., 372.
quantitative proportion of acetone and acetoacetic acid in urine as obtained by qualitative tests, A., 373.
tautomeric enol- and keto-forms of acetoacetic acid, A., 373.
colorimetric micro-determination of iron, A., 388.
precipitation of serum-proteins by acids and salts of heavy metals, A., 583.
- Lorber, L. See also Sörensen, S. P. L.
- Lorber, N. See Zinke, A.
- Lorberblatt, I. See Falk, K. G., and Noyes, H. M.
- Lorenz, H. See Auwers, K. von.
- Lorenz, R., equilibrium between tin, cadmium, and their chlorides in the fused state, A., 518.
thermodynamic evaluation of the contact potentials of two fused salts, A., 1144.
- Lorenz, R., and Oppenheimer, F., pyrochemical Daniell and equilibrium cells, A., 523.
- Lorenz, R., and Westenberger, J., theory of electrolytic ions. XXXIV. Application of extrapolation method of Lorenz and Landé, A., 23.
- Lorenz, R. See also Auwers, K. von.
- Lorenz A.-G., C. See Gerth, F.
- Lorenzo, J. See Wieland, Heinrich.
- Loriette, and Jovinet, analysis of mixed acid, (P.), B., 700.
- Loriette, P., apparatus for dehydrating volatile liquids, A., 128.
- Loring, F. H., synthesis of elements, A., 87.
wave-length of ruthenium $K\beta$, A., 179.
selective displacement of 0.0153 Å. in X-ray spectral lines, I.-X., A., 287, 391, 602, 707, 999.
radiation and the photo-electric effect, A., 394.
- Loring, R. A. See Green, J. B.
- Loriot, H. J. M. See Schulz, J. G.
- Lormand, C. See François, M.
- Lorraine, D. G., oil and gas separator, (P.), B., 323.
- Losana, L., fluidity of metals and alloys in the liquid state. II. and III, A., 1133.
- Losana, L., and Frova, E., light aluminium alloys, B., 725.
- Losana, L. See also Montemartini, C.
- Losen, J. See Loevenich, J.
- Lossen, K. See Guthrie, A.
- Lott, R. V., correlation of chemical composition with hardness in brambles, A., 1225.
- Lottermoser, A., experimental methods for determining acid concentration, hydrogen-ion concentration, and acid activity, A., 20.
- Lotz, A. See Duhme, E.
- Loubman, N. See Petrenko-Kritschenko, P.
- Loughrey, C. T., distillation of oil shale, (P.), B., 548.
- Louisville Cement Co. See Speed, W. S.
- Lourens, C., and Naam. Vennoots Algem. Norit Maatschappij, treatment of liquids, (P.), B., 545*.
- Louth, M. E. See Udylyte Process Co.
- Love, M. McF. See Cockburn, T.
- Lovelace, B. F. See Frazer, J. C. W.
- Loveland, R. P., and Trivelli, A. P. H., mathematical methods of frequency analysis of size of particles, B., 688.
mathematical methods of frequency analysis of size of particles. II. Application to silver bromide precipitates, B., 893.
- Lovell, W. G., Coleman, J. D. [with Boyd, T. A.], combustion in the gasoline engine. I. Determination of rate of burning by chemical analysis. II. The burning of hydrogen and carbon monoxide, B., 322.
laboratory method of determining the starting properties of motor fuels, B., 323.
- Lovering, E. W. See Krieble, V. K.
- Lovett, T. W., treatment of sewage, (P.), B., 430.
- Lovibond, F. E. See Tintometer, Ltd.
- Low, F. S. See Mathieson Alkali Works.
- Low-Temperature Carbonisation, Ltd., and Parker, J. F., doors for closing retorts, etc., (P.), B., 836.
[vapour outlet pipe and seal in] retorts for the distillation of coal and solid carbonaceous substances; means for discharging retorts, etc., (P.), B., 837.
- Lowenfeld, M. F., Widdows, S. T., Bond, M., and Taylor, E. I., variations in chemical composition of normal human colostrum and early milk, A., 272.
- Lower, S. E. See Evans, W. L.
- Lowery, H., refraction and dispersion of gaseous carbon tetrachloride, A., 926.
- Lowndes, J. See Plimmer, R. H. A.
- Lowry, H. H., significance of dielectric constant of a mixture, A., 405.
- Lowry, H. H., and Kohman, G. T., absorption of water by rubber, A., 199.
- Lowry, H. H. See also Lee, J. A.
- Lowry, T. M., mechanism of chemical transformation, A., 131.
coefficient of ionisation of a fused salt, A., 521.
valency. V. Molecular structure of strong and weak electrolytes. (a) Complete ionisation, A., 1025.
valency. VI. Molecular structure of strong and weak electrolytes. (b) Reversible ionisation, A., 1026.
dynamic isomerism of the reducing sugars, A., 1148.
dynamic isomerism. XXV. Mechanism of catalysis by acids and bases, A., 1150.
- Lowry, T. M., and Coode-Adams, W. R. C., optical rotatory dispersion. III. The rotatory dispersion of quartz in the infra-red, visible, and ultra-violet regions of the spectrum, A., 813.
- Lowry, T. M., McHatton, L. P., and Jones, G. G., chlorides of sulphur. I. Freezing points, A., 505.
- Lowry, T. M., and Smith, G. F., dynamic isomerism. XXIV. Neutral-salt action in mutarotation, A., 1150.
- Lowry, T. M. See also Gifford, J. W., and Richards, E. M.
- Lowson, H., and Lowson, Ltd., H., screen for separating or sorting coals, minerals, etc., (P.), B., 696.
- Lowson, W. See Dawson, H. M.
- Lowson, Ltd., H. See Lowson, H.
- Lowy, A. See Powers, P. O.
- Lowy, O., and Steneck Trust Co., preparation of arsenical [arsphen-amine] solutions, (P.), B., 380.
- L'Oxyhydrique Française, gas burners and heating apparatus particularly for hydrogen and nitrogen generators, (P.), B., 482.
- Loyarte, R. G., and Williams, A. T., possible abnormal spectral series of mercury, A., 602.
- Lozai, A., and Lerciu, A., crushing machines [for coal, coke, etc.], (P.), B., 6.
- Lublin, A., influence of "synthalin" on the respiratory quotients of diabetics, A., 896.
utilisation of carbohydrate in the non-diabetic organism. II. Respiratory exchange after administration of carbohydrate under the influence of adrenaline and substances with adrenaline-like action (pituitary extract, ephedrine, and "ephedrine" [synthetic *dl*-ephedrine]), A., 1110.
- Lubovich, V. P., photographic reversion, B., 509.
- Lubowsky, S. J., and Metal & Thermit Corporation, method of transforming titanium dioxide or rutile, (P.), B., 815.
- Lucarini, C. See Burrows, G. H.
- Lucas, A., purifying iron scale, (P.), B., 753.
- Lucas, C. C. See Clark, R. H.
- Lucas, E. A. See Molybdenum Corporation of America.
- Lucas, F. F., microstructure of the path of fatigue failure in a specimen of Armeo iron, B., 605.
- Lucas, F. F., and Western Electric Co., Inc., [steel] alloy, (P.), B., 490.
- Lucas, G. H. See Brown, W. E.
- Lucas, H. J., all-glass distillation column without constriction, A., 641.
- Lucas, H. J., and Ewing, F. J., preparation of phosphorus pentafluoride, A., 637.
- Lucas, H. J. See also Schultz, M. N.
- Lucas, O. D., Lomax, E. L., and V. L. Oil Processes, Ltd., method of refining hydrocarbons, (P.), B., 182*.
- Lucas, R. B., edge-runner mills, (P.), B., 895.
- Luce, E. M., glass screens for transmission of antirachitic light radiations, A., 283.
- Luce, S. B. See Davis, T. L.
- Lucke, B., and McCutcheon, M., effect of salt concentration of the medium on the rate of osmosis of water through the membrane of living cells, A., 696.
- Luciani, J., motor spirit, (P.), B., 274.
- Ludloff, H., term representation of the aluminium hydride bands, A., 5.
molecular binding and band spectra, A., 5.
- Ludlum Steel Co. See Clement, A. W.
- Ludwig, A. L., and Ludwig, G. E., rotary pump suitable for feeding viscose, (P.), B., 649.

- Ludwig, C., utilisation of heat in drying drums, (P.), B., 639.
- Ludwig, E. See Schmid, L.
- Ludwig, G. E. See Ludwig, A. L.
- Ludwig, W., and Ebster, H., blood-gases in strychnine poisoning, A., 1220.
- Ludwigsen, M., production of printing inks, (P.), B., 452.
- Lübeck, C. H. O., [preventing deformation of electrodes in] electric accumulators, (P.), B., 339.
- Lüdecke, K., and Lüdecke, N., production of glycerin from sugar by fermentation in an alkaline medium, (P.), B., 921.
- Lüdecke, N. See Lüdecke, K.
- Lüdtke, M. See Hess, K.
- Lüers, H., significance of hydrogen-ion concentration in the brewery, B., 423.
- Lüers, H., and Loehmüller, K., gelatinisation of fruit pectins, B., 568.
- Lüers, H., and Mengele, J., phytochemical reduction of quinones, A., 76.
- Lüers, H., and Silbereisen, K., phytase of malt, A., 794.
- Lueg, P. See I. G. Farbenind. A.-G.
- Lührig, H., determination of milk fat in foodstuffs by the Reichert-Meißl value, B., 236.
- waters with a solvent action on iron and manganese, the rôle of carbonic acid in metallic corrosion, and the determination of free carbonic acid in water, B., 462.
- removal of iron from a ground water, B., 574.
- removal of dissolved organic substances from water for drinking and general purposes, B., 718.
- Lücke, H., unipolarity of lead sulphide, A., 402.
- Luening, E. G., liquefaction of air and separation into oxygen and nitrogen, (P.), B., 601.
- Lüppo-Cramer, [photographic] ripening process. VI., B., 174.
- sodium and potassium carbonates in the developer, B., 620.
- time-effect in bleach-out reactions, B., 621.
- Schwarzschild effect. I. and II., B., 714, 715.
- Schwarzschild effect as a regression phenomenon, B., 715.
- time effect, B., 715.
- fog formation by dyestuffs, B., 861.
- Lüscher, E., and Elektrizitätswerk Lonza, manufacture of stabilised metaldehyde, (P.), B., 574*.
- Lüscher, E. See also Elektrizitätswerk Lonza, and Liechtenhahn, T.
- Lüttin, K., and Geigy A.-G., J. R., dye solution, (P.), B., 600*.
- Lüttringhaus, A. See I. G. Farbenind. A.-G.
- Lüty, W. See Schertel, L.
- Luft, G., distribution of saponins and tannins in plants, A., 388.
- Luft, S. See Weiss, R.
- Luh, E. See Ernst, W.
- Lukas, J. See Jilek, A.
- Lukens, H. S., use of mercury as a cathode in electroanalysis, A., 533.
- Lukens, H. S., and Solidifier Corporation, water-repellent composition [cement], (P.), B., 110.
- Lukin, A. M. See Scharvin, V. V.
- Lukirsky, P., electron velocities in the Compton effect, A., 492.
- Lukirsky, P., and Kosman, M., method of measuring the size of particles, B., 127.
- L'Ultra-Filtre D.M.S., purification, decoloration, and deodorisation of liquids and solutions, (P.), B., 512.
- Lumet, G., and Marcelet, H., utilisation of marine-animal and fish oils in motors, B., 736.
- Lumière, A., Lumière, L., and Seyewetz, A., difference between the reducing powers of metoquinone and a mixture of methyl-*p*-aminophenol sulphate [metol] and quinol, B., 238.
- mordanting of silver images by cupric thiocyanate, B., 318*.
- absorption of moisture of the air by anhydrous sodium salts used in photography, B., 398.
- insolubilisation of gelatin of photographic plates by developers, B., 620.
- developers for hot countries, B., 620.
- Lumière, A., and Perrin, F., organometallic derivative of gold, A., 233.
- Lumière, L. See Lumière, A.
- Lummerzheim, H. See I. G. Farbenind. A.-G.
- Lummus, W. E., separating volatile chemicals [aniline from water], (P.), B., 60.
- refining petroleum, (P.), B., 626.
- Lund, E. See Sörenson, S. P. L.
- Lund, H., methoxy-substituted triphenylcarbinols and their salts, A., 661.
- Lund, J., making fluxing materials, (P.), B., 682.
- Lund, V. K. See Goldschmidt, H.
- Lundborg, B. H. See Svenska Ackumulator Aktiebolaget Jungner.
- Lunde, G., formation of mixed crystals by precipitation, A., 97.
- constitution of mixed crystals, A., 400.
- occurrence of platinum in Norwegian rocks and minerals, A., 439.
- existence and preparation of some oxides of the platinum metals; amorphous oxides, A., 815.
- titanium sesquioxide, A., 949.
- micro-determination of small quantities of platinum in ores and minerals, B., 302.
- microdokinastic method [for the determination of the precious metals in ores], B., 605.
- Lunde, G., and Fellenberg, T. von, presence of iodine in iron and iron slags, B., 845.
- Lunde, G. See also Barth, T.
- Lundegårdh, H., carbon dioxide production and gas permeability of soil, B., 121.
- carbon dioxide evolution of soil and crop growth, B., 662.
- Lundén, H., application of spectrometric measurements in the [beet] sugar industry, B., 395.
- Lundgren, E. M., manufacture of a fibrous compound [for building purposes], (P.), B., 878.
- Lundy, W. T., Burns, H. S., and Freeport Sulphur Co., process for mining sulphur, (P.), B., 140.
- Lungren, E. E. See Copley, I. C., and Murdock, W. J.
- Lunn, E. G. See Hogness, T. R., and Smyth, H. D.
- Lunt, R. W., determination of the power-voltage characteristic of a Siemens ozonizer, B., 492.
- Lunt, R. W., and Venkateswaran, R., decomposition of carbon monoxide in the corona due to alternating electric fields. II., A., 531.
- Lunt, R. W. See also Elliott, G. A.
- Lupo, G. See Berlingozzi, S.
- Lurie, E., and Gillespie, L. J., equilibrium pressures of a gas in a mixture especially of ammonia mixed with nitrogen, A., 616.
- Lustig, B., determination of carbon in organic substances by oxidation in solution, A., 687.
- determination of carbon in organic substances in the wet way. II. Determination of halogens and of nitrogen, A., 891.
- Lustig, O., and Katscher, E., action of chlorosulphonic acid on aromatic amines, A., 867.
- Lustron Co., Inc. See Mork, H. S.
- Luther, M. See I. G. Farbenind. A.-G.
- Luther, R., test for emulsion gelatin, B., 509.
- Lutter, C. See Schranz, K.
- Lutysens, L. C., and Child, R. O., composition for roofing, road surfacing, and other purposes, (P.), B., 781*.
- Lutz, L., soluble enzymes secreted by *Hymenomyces*; anti-oxxygenous actions superimposed on reducing actions, A., 279.
- soluble enzymes secreted by *Hymenomyces*; tannin as anti-oxidant, A., 906.
- Lutz, R. E., unsaturated 1:4-diketones. I. Synthesis and structure of $\alpha\beta$ -di-(2:4:6-trimethylbenzoyl)vinyl alcohol, A., 58.
- unsaturated 1:4-diketones. II. Formation of certain derivatives of furan, A., 61.
- unsaturated 1:4-diketones. III. Mode of addition of halogen to dibenzoyl ethylene, A., 565.
- Lutz, R. E. See also Conant, J. B.
- Luyet, B. See Guye, C. E.
- Lyall, A., effect of protein in the diet in diabetes mellitus, A., 692.
- Lykken, H. G., reducing or pulverising coal and other materials, (P.), B., 5.
- Lyle, W. G. See Sharlit, H.
- Lynn, A. H., producing high-grade combustible gases from bituminous fuel, (P.), B., 694.
- Lynn, A. H., and Leyst, C., production of cellulosic material, (P.), B., 328.
- Lynch, D. F. J., and Scanlan, J. T., naphthalenesulphonic acids. VIII. Hydrolysis of naphthalene-1:5-disulphonic acid, B., 808.
- Lynch, D. F. J. See also May, O. E.

- Lyncker, L. von. See Agde, G.
 Lynn, E. V., and Cheng, P. Y., [composition of plants], B., 316.
 Lynn, E. V., and Lee, F. A., nitrosyl chloride and ketones, A., 544.
 Lynn, E. V., Lehman, A., and Cain, R., volatile oil of *Ledum groenlandicum*, B., 172.
 Lynn, E. V. See also Burlage, H. M.
 Lynn, G., apparatus for the determination of melting temperature, A., 1048.
 Lyon, C. J., phosphate ion as a promoter catalyst of respiration, A., 599.
 arsenate as a catalyst of oxidation, A., 599.
 Lyon, T. L. See Wilson, J. K.
 Lyons, E., thio glycollic acid as a colour test for iron, A., 953.
 Lyons, R. E., and Bratt, W. E., preparation of organo-selenium compounds by means of the Friedel-Crafts reaction, A., 267.
 selenoketones, A., 449.
 Lyons, R. E., and Smith, L. T., reduction of nitro-compounds with iron and soluble chlorides, A., 234.
 Lyons, R. E. See also Smith, L. T.
 Lyons Piece Dye Works. See Rivat, G.
 Lythgoe, H. C., ammonia content of cold-storage eggs, B., 762.
 Lytle, J. D., and Rosenberg, L., cerebrospinal fluid in nephritis, A., 789.
 Lytle, J. D. See also Wilcox, H. B.
 Lyubin, B. O. See Mintz, I. B.

M.

- M.O.R. Products Co. See Odom, L. L.
 Maas Chemical Co., A. R. See Glaze, H. L.
 Maass, O., and Barnes, W. H., automatic low-temperature thermostat, A., 335.
 Maass, O., and Mennie, J. H., variable resistance, A., 315.
 Maass, O. See also Coffin, C. C., Lipsett, S. G., and Sutherland, B. P.
 Mabag, Maschinen- & Apparatebau Akt.-Ges., apparatus for extracting gases from liquids, (P.), B., 464.
 Mabbott, E. B. See Evans, E. B.
 Maboe, H. C., and Small, A. E., combined pyro- and hydro-metallurgical process for the treatment of nickeliferous pyrrhotite and other sulphide ores for the recovery of iron and sulphur in addition to the other contained metals, B., 282.
 Mabery, C. F., petroleum lubricants, B., 402.
 "saturation" of the petroleum lubricant hydrocarbons as shown by their reaction with bromine, B., 577.
 McAdam, D. J., jun., corrosion fatigue of non-ferrous metals, A., 1037.
 McAdam, J. D., corrosion fatigue of metals as affected by chemical composition, heat treatment, and cold working, B., 679.
 McAfee, A. McD., and Gulf Refining Co., hydrogenation of [petroleum] oils, (P.), B., 163.
 distilling [oils] with aluminium chloride, (P.), B., 741.
 McAllister, P., and Westinghouse Lamp Co., producing "non-sag" tungsten [filament] wire, (P.), B., 81.
 McAlpine, (Miss) I. M. See Patterson, T. S.
 McAmis, J. W., prevention of phenol taste with ammonia, B., 381.
 MacArthur, E. H. See Sherman, H. C.
 Macaulay, J. M., "seizure" with sliding surfaces, A., 299.
 McBain, J. W., survey of the main principles of colloid science, A., 620.
 structure in surfaces of liquids, A., 930.
 McBain, J. W., and Davies, G. P., experimental test of Gibbs' adsorption theorem; study of the structure of the surface of ordinary solutions, A., 1022.
 McBain, J. W., and Ferguson, J., influence of humidity changes upon the composition of building materials, B., 366.
 McBain, J. W., and Field, M. C., equilibria underlying the soap boiling processes; system potassium laurate-potassium chloride-water, B., 18.
 McBain, J. W., Howes, H. S., and Thorburn, (Miss) M., hydrogen electrode in the study of the rate of saponification of oils and fats by aqueous alkali, B., 145.
 McBain, J. W., and Lee, W. B., adhesives and adhesion: true [organic] chemical compounds as adhesives, B., 159.
 adhesives and adhesion: relation of joint strength to tensile strength of films, B., 687.
 McBain, J. W., and Stewart, A., acid soaps: crystalline potassium hydrogen diolate, A., 750.
 McBERTY, F. H. See Aktiebolaget Separator, and Flowers, A. E.
 Macbeth, A. K. See Graham, H.
 McBride, E. W. See Ardagh, E. G. R.
 MacCabe, F. C. See Dunlop Rubber Co., Ltd.
 McCaig, D., and Livingstone, R., dye jigs for dyeing fabrics, (P.), B., 651.
 McCandless, J. M., and Burton, J. Q., sources of error in the determination of phosphoric acid by the molybdate-magnesia method. II., B., 414.
 analysis of calcium nitrate, B., 637.
 McCartney, W. See Harington, C. R.
 McCarty, L. E., and Jones, L. T., index of refraction of water for short continuous waves, A., 711.
 McCaskell, J. A., [continuous] pressure filters, (P.), B., 65.
 McCaughan, J. M. See Elman, R.
 McCaughy, W. J., and Cleveland Trust Co., manufacture of oxy-chloride cement, (P.), B., 603.
 Macchia, O., action of stannous chloride on silver mirror formation, A., 1044.
 elementary method of qualitative analysis without the use of hydrogen sulphide, thioacetic acid, or sulphides, A., 1045.
 McClellan, G. E. See Ardagh, E. G. R.
 McClelland, W. R. See Traill, R. J.
 McClendon, J. F., colloidal properties of the surface of the living cell, A., 1213.
 McClendon, J. F., Russell, S., and Tracy, E., determination of η_{sp} of blood with the aid of the Duboscq colorimeter, A., 69.
 McCleure, C. W., and Huntsinger, M., liver function. VI. Determination of cholesterol and alcohol-soluble and -insoluble bile pigments of the duodenal contents, A., 372.
 McCluskey, K. L., and Sher, H. J. C., menthol studies. I. Menthyl esters of the nitro- and amino-cinnamic acids, A., 363.
 McCollister, A. M., and Wagner, C. R., device for adjusting the levelling bulb on a gas-analysing apparatus, B., 127.
 McCollum, E. D., specific heat of gaseous nitrogen tetroxide, A., 193.
 McCollum, E. V., and Kruse, H. D., extraction of vitamin-B from wheat germ, A., 1223.
 McCollum, E. V. See Estill, H. W., and Simmonds, N.
 McCole, E. M. See Bogert, M. T.
 McCombie, H., Scarborough, H. A., and Smith, F. F. P., velocity of formation of quaternary ammonium salts from trimethylamine and benzyl chloride and the three mononitrobenzyl chlorides, A., 524.
 McCombie, H. See also Blakey, W.
 McCool, M. M., relation of soil to plant cell sap, A., 596.
 soil colloids, B., 951.
 McCormack, C. P. See Cromwell & Murray Co.
 McCormack, J. T., dehydration of gypsum, A., 120.
 McCormick, B., distillation of carbonaceous materials, (P.), B., 356.
 McCoy, J. T. See Mead, B.
 McCracken, R. See Gilman, H.
 McCrea, C. L., manufacture of briquettes from lignite, (P.), B., 132.
 McCrea, W. H., specific heat of carbon dioxide and the form of the carbon dioxide molecule, A., 1122.
 specific heat of water vapour and the theory of the dissociation of water vapour at high temperatures, A., 1131.
 McCrosson, J. T. See Cochran, E. S.
 McCullagh, D. R., distribution of glucosides in western Canadian plants, A., 599.
 McCulloch, (Mrs.) J. M. See Semple.
 McCullough, F. S., manufacture of vacuum-tube filaments, (P.), B., 116.
 McCutcheon, M. See Lucke, B.
 McCutcheon, T. P. See Wyckoff, R. W. G.
 McDermott, P. J. See Cox, K.
 McDill, R. De O., preservation of fruit, (P.), B., 569.
 McDonald, F. C., spectroscopic investigation of acetylene, methane, and ethylene, A., 1123.
 McDonald, F. G. See Bills, C. E.
 Macdonald, J. L. A., manufacture of fibrous cellulose, B., 649.
 Macdonald, J. W., and Rucker, W. L., manufacture of amorphous carbon, etc., (P.), B., 722.
 Macdonald, M. B., and University of Tennessee, removal of undesirable foreign flavours and odours from milk, cream, and other milk products, (P.), B., 922.

- McDonald, (Miss) M. C., Sutton, (Miss) E. E., and McLay, A. B., arc and spark spectra [of yttrium, zirconium, lanthanum, cerium, neodymium, and beryllium] in the lower quartz spectral region, A., 390.
- Macdonald, W. J., manufacture of substances for reducing arterial hypertension, (P.), B., 670.
- McDowall, F. H., constituents of *Myoporum laetum*, Forst. (the "ngaio"). II. Hydrogenation of ngaiono and ngaiol and dehydration of ngaiol, A., 566.
- McDowall, R. J. S. See Battie, M. A.
- McDowell, S. J., effect of various sodium silicates and other electrolytes on clay slips, B., 677.
- McDowell, S. J., and Vachuska, E. J., effect of calcined cyanite in porcelain bodies, B., 220.
- McElvain, H. C. See McElvain, H. J.
- McElvain, H. J., and McElvain, H. C., retort, (P.), B., 799.
- McEwen, S., and International Combustion Engineering Corporation, carbonisation of subdivided fuel, (P.), B., 931*.
- MacEwen, S. R., preparation of solutions of derivatives of diamino-dihydroxyarsenobenzene, (P.), B., 203*, 619.
- McFarlane, J., Dunbar, V. E., Borsook, H., and Wasteneys, H., stages of the peptic hydrolysis of egg-albumin, A., 278.
- Macfarlane, M. G. See Hynd, A.
- McGavack, J., and Naugatuck Chemical Co., manufacture of moulded rubber articles from latex, (P.), B., 565.
- McGavack, J., and Revere Rubber Co., preparation of plastics containing rubber, (P.), B., 885.
- MacGee, A. E., gas-expansion porosimeters [for ceramic products], B., 750.
- McGeorge, W. T., Breazeale, J. F., and Burgess, P. S., aluminium hydroxide and the "freezing up" of alkali soils during reclamation, B., 588.
- McGeorge, W. T. See also Burgess, P. S.
- McGill, C. T., and Reiter Co., two-flow base-exchange water softener, (P.), B., 718.
- McGill, W. J. See Sullivan, F. W., jun.
- MacGillivray, J. H., effect of phosphorus on composition of tomato plants, A., 599.
- McGinty, D. A. See Gesell, R.
- McGivern, W. J. See Thompson, C. H.
- McGougan, J., and Hunter, J., emulsifying apparatus, (P.), B., 433.
- MacGowan, J. K. See Guggenheim, D.
- McGregor, E. T., recovery of pulp from printed waste paper, (P.), B., 963.
- McGregor, R. R., and Beal, G. D., highly unsaturated fatty acids of fish oils. II. Limit of unsaturation in menhaden oil, B., 145.
- Mach, F., and Lepper, W., determination of common salt in foodstuffs, B., 265.
- direct determination of sodium chloride in foodstuffs, B., 763.
- determination of chlorine in milk, B., 793.
- Mach, M. E. von, jun., concrete block composition, (P.), B., 412.
- McHaffie, I. R., vapour pressure of water over sulphuric acid-water mixtures at 25° A., 206.
- influence of an "indifferent" gas on the concentration and activity of a vapour in equilibrium with a condensed phase or phases. II., A., 416.
- McHaffie, I. R. See also Lenher, S.
- McHargue, J. S., mineral constituents of the cotton plant, A., 599.
- significance of the occurrence of manganese, copper, zinc, nickel, and cobalt in Kentucky blue grass, B., 394.
- McHatton, L. P. See Lowry, T. M.
- Machebœuf, M., determination of partition of phosphorus in blood, A., 370.
- micro-determination of phosphoric acid combined as ester in blood and serum, A., 893.
- Machebœuf, M., and Zwilling, G., destruction of organic substances for micro-determination of phosphorus in blood, A., 893.
- Machebœuf, M. See also Bertrand, G.
- McHenry, J. J., temperature coefficient of contact E.M.F., A., 421.
- Machlett, R. R., manufacture of luminous electrical [neon] discharge tubes, (P.), B., 339.
- Machlett, R. R., and Rainbow Light, Inc., neon tube, (P.), B., 529.
- Macht, D. I., and Anderson, W. T., effect of polarised light on the pharmacological properties of some drugs, A., 991.
- Macht, D. I., and Hill, J. H., effect of ultra-violet and polarised light on mercurochrome, B., 346.
- Macht, D. I., and Krantz, J. C., jun., effect of polarised light on the pharmacodynamic properties of some drugs, B., 346.
- phytopharmacological study of digitalis assay, B., 506.
- McHugo, C. W. See Chapman, A. C.
- McIlhenney, H. R. See Vulcan Detinning Co.
- McIlvaine, R. L., apparatus for determining the moisture content of masses of particles [e.g., moulding sand], (P.), B., 127.
- McInerney, T. J. See Sharp, P. F.
- MacInnes, D. A., and Cowperthwaite, I. A., ionisation of some typical strong electrolytes, A., 1031.
- MacInnes, D. A., Cowperthwaite, I. A., and Huang, T. C., moving-boundary method for determining transference numbers. VI. Further developments in experimental technique, A., 831.
- MacInnes, D. A., and Jones, P. T., method of differential potentiometric titration, A., 35.
- McIntire, B. W. See James, C.
- McIntire, C. V., and Thomson, L. R., low-temperature semi-coke in briquetted form, B., 177.
- MacIntire, W. H., outgo of calcium, magnesium, nitrates, and sulphates from high-calcic and high-magnesian limes incorporated in two soil zones, B., 421.
- MacIntire, W. H., Shaw, W. M., and Crawford, E. M., organic matter changes in two soil zones, as influenced by difference in form, fineness, and amount of calcium and magnesium compounds, B., 307.
- Macintosh, A. B. See Macintosh, R.
- McIntosh, A. M., making and moulding hard porcelain, (P.), B., 443.
- McIntosh, D. See Butler, K. H.
- McIntosh, D. H., determination of metallic lead in metallurgical products and pigments, B., 78.
- McIntosh, F. F., and Cockrell, W. L., effect of phosphorus on the resistance of low-carbon steel to repeated alternating stresses, B., 191.
- McIntosh, J., "acrolite"—a new synthetic resin, B., 147.
- McIntosh, J., and Diamond State Fibre Co., manufacture of a paper product, (P.), B., 675.
- McIntosh, J., Wolford, E. Y., and Diamond State Fibre Co., manufacture of a synthetic resin [shellac substitute], (P.), B., 916.
- MacIntosh, J. C., and General Engineering Co., flotation apparatus [for ores], (P.), B., 115.
- MacIntosh, J. C. See also Egeberg, F. P.
- Macintosh, R., and Macintosh, A. B., furnace for heating tar and the like, (P.), B., 646.
- Mack, E., jun., influence of centrifugal force on rate of evaporation, A., 195.
- MacKay, E. M., and MacKay, L. L., concentration of urea in normal [human] blood, A., 1214.
- MacKay, E. M. See also Addis, T.
- MacKay, G. M. See Jones, H. A.
- MacKay, G. M. J. See British Thomson-Houston Co., Ltd.
- Mackay, H. S., electrochemical processes and apparatus for the extraction of copper and zinc from ores, (P.), B., 115.
- roasting of metallic ores, (P.), B., 913*.
- Mackay, L. L. See Addis, T., and MacKay, E. M.
- Mackay, P. A., and National Metal & Chemical Bank, Ltd., production of titanium oxide, (P.), B., 140*.
- McKay, R. J., uses of pure nickel, B., 681.
- McKay, R. L., renal threshold for dextrose, A., 791.
- McKee, J., and Sun Oil Co., manufacture of grease, (P.), B., 323, 787.
- McKee, R. H., making peroxides of organic acids, (P.), B., 714.
- manufacture of alkyl sulphates, (P.), B., 892.
- McKee, R. H. See also Burke, S. P., and Cable, D. E.
- McKeefe, E. P. See Bradley, L., and Bradley-McKeefe Corporation.
- McKeehan, L. W., formation of twin metallic crystals, A., 191, 299.
- iron crystals, A., 502.
- atomic grouping in "permalloy," A., 1128.
- magnetostriction, B., 46*.
- McKenna, C. B. See Fearon, W. R.
- McKenzie, A., and Dennler, W. S., persistence of optical activity in the elimination of water from optically active glycols. I., A., 243.
- McKenzie, A., and Duff, G. K., selective action of organo-magnesium compounds and ethyl diethyloxamate, A., 755.
- McKenzie, A., and Roger, R., elimination of the amino-group of tertiary amino-alcohols. IV. Displacement of the amino- by the hydroxy-group, A., 457.

- McKenzie, D. A., and Viscose Co., manufacture of artificial silk, (P.), B., 552.
- Mackenzie, (Miss) G. I. See Barkla, C. G.
- Mackenzie, J. T., determination of carbon in cast iron, B., 167.
- McKeown, A., and Stowell, F. P., vapour pressures of mixtures of (a) methyl acetate and water, (b) methyl acetate, sucrose, and water, A., 206.
- McKeown, A. See also Belton, J. W.
- Mackert, A., catalytic methylation of ammonia and organic amines, (P.), B., 772.
- Mackeson, H., manufacture of beverages, (P.), B., 375.
- McKie, D. See Garner, W. E.
- McKie, (Miss) P. V., action of nitric acid on acetylene and ethylene, A., 643.
- effect of mercury salts in the nitration of aromatic systems, A., 866.
- Mackie, R. F. See Haslam, R. T.
- McKim, W. A., interpretation of stress-strain curves on lacquer and lacquer components, B., 84.
- McKinlay, D., manufacture of jams, jellies, and other preserves, (P.), B., 668.
- manufacture of chocolate and other confectionery, (P.), B., 858.
- McKinney, H. H., factors affecting certain properties of a [tobacco] mosaic virus, B., 764.
- quantitative and purification methods in [tobacco] virus studies, B., 764.
- McKinnon, N. E. See Defries, R. D.
- Macky, W. A. See Burbidge, P. W.
- McLachlan, C. G., synthetic testing for flotation, B., 560.
- McLachlan, T. See Evers, N., and Jones, J. M.
- MacLagan, N. F. See Dickens, F.
- McLaughlin, G. D., Highberger, J. H., and Moore, E. K., chemistry of liming, B., 971.
- McLaughlin, G. D., and O'Flaherty, F., micro-tannology of unhairing [hides and skins], B., 972.
- McLaughlin, G. D., Rockwell, G. E., and Blank, I. H., bacteriology of liming, B., 971.
- McLaughlin, G. D., and Theis, E. R., animal skin fat, B., 20.
- action of neutral salts on hide protein, B., 53.
- McLaughlin, L., utilisation of calcium of spinach, A., 1107.
- McLaughlin, W. B., method of concentrating fluids, (P.), B., 207.
- production of dry milk, (P.), B., 314.
- method of preserving fruits, (P.), B., 569.
- MacLaurin, R. D., and Smith, C. C., garbage reduction, (P.), B., 622.
- McLay, A. B. See McDonald, (Miss) M. C., and McLennan, J. C.
- McLean, F. T., and Gilbert, B. E., relative tolerance of crop plants for aluminium, B., 855.
- McLean, F. T. See also Gilbert, B. E.
- McLean, H. C. See Joffe, J. S.
- Maclean, I. S. See Daubney, C. G.
- McLennan, J. C., Cohen, (Miss) E., and Liggett, M. J., absorption spectra of metallic vapours, A., 395.
- McLennan, J. C., and Cooley, R. F. B., ultra-violet absorption spectra of nickel, cobalt, and tellurium, A., 395.
- McLennan, J. C., Grayson-Smith, H., and Collins, W. T., intensities in the secondary spectrum of hydrogen at various temperatures, A., 1004.
- McLennan, J. C., Ireton, H. J. C., and Thomson, K., luminescence of solid nitrogen under cathode-ray bombardment, A., 1007.
- McLennan, J. C., and Liggett, M. J., arc and spark spectra of rare elements in the fluorite region, A., 390.
- McLennan, J. C., and McLay, A. B., structure of arc spectra of germanium and carbon, A., 389.
- structure of the arc spectra of the elements of the nitrogen group, A., 802.
- new regularities in atomic spectra, A., 909.
- McLennan, J. C., McLay, A. B., and McLeod, J. H., structures of the arc spectra of elements of the oxygen group, A., 999.
- McLennan, J. C., and McLeod, J. H., wave-length of the green auroral line in the oxygen spectrum, A., 910.
- McLennan, J. C., and Niven, C. D., electrical conductivity at low temperatures, A., 925.
- McLennan, J. C., and Plummer, W. G., crystal structures of *n*-octane, *n*-hexane, and *n*-pentane, A., 816.
- McLennan, J. C., and Ruedy, R., structure of the spectra of krypton and xenon, A., 911.
- McLennan, J. C., Ruedy, R., and McLeod, J. H., origin of the auroral green line in the oxygen spectrum, A., 802.
- McLennan, J. C., Ruedy, R., and Cohen, (Miss) E., magnetic susceptibility of the alkali metals, A., 1017.
- McLennan, J. C., Smith, H. G., and Lea, C. A., band spectra of helium and hydrogen at low temperatures, A., 5.
- McLennan, J. C., Walerstein, I., and Smith, H. G., fluorescence spectra of the sulphur group, A., 291.
- McLennan, J. C., and Wilhelm, J. O., crystal structure of solid oxygen, A., 297.
- McLeod, J., Chapman, C., and Wilson, T. A., vertical-retort tar, B., 37.
- McLeod, J. H. See McLennan, J. C.
- McLeod, J. J. R. See Barbour, A. D., Chaikoff, I. L., McLennan, J. C., and Simpson, W. W.
- McLintock, J., and Tucker, S. H., dicarbazyls. II. 9:9'-Dicarbazyl and its halogen derivatives, A., 678.
- McMahon, J. F., texture of ceramic materials, B., 253.
- MacMahon, J. H., and Mathieson Alkali Works, method of chlorinating solutions, (P.), B., 166, 522.
- apparatus for the evaporation of liquid chlorine, (P.), B., 166.
- apparatus for chlorinating solutions, (P.), B., 166.
- process and apparatus for preparing bleach liquors, (P.), B., 166.
- clarification of bleach liquors, (P.); B., 166.
- Macmaster, A., and Perkin, A. G., reduction products of the hydroxyanthraquinones. IX., A., 771.
- McMath, A. M., and Read, J., optical resolution of chloriodoacetic acid, A., 445.
- McMichael, P., and Hydrocarbon Refining Process Co., Inc., refining of petroleum oils, (P.), B., 35.
- refining hydrocarbon oils, (P.), B., 806.
- McMillan, E., and Pauling, L., X-ray study of alloys of lead and thallium, A., 405.
- MacMullin, R. B., Gegenheimer, R. E., and Mathieson Alkali Works, manufacture of alcohols, (P.), B., 892.
- MacMullin, R. B., and Mathieson Alkali Works, manufacture of hypochlorites, (P.), B., 777.
- McMurray, R. E. See Greenfield, R. E.
- McNab, W. See Henderson, G. G.
- McNabb, W. M., determination of phosphorus pentoxide as magnesium ammonium phosphate, A., 435.
- determination of arsenic pentoxide as magnesium ammonium arsenate, A., 745.
- MacNair, W. A., secondary radiation and polarisation of resonance radiation in cadmium, A., 602.
- Zeeman effect of the hyperfine-structure components of the mercury line 2537, A., 804.
- MacNair, W. A., and Ellett, A., explanation of the incomplete polarisation of mercury resonance radiation, A., 911.
- McNally, W. D., Embree, H. C., and Rust, C. A., alcohol content of normal placental tissue, A., 894.
- McNulty, (Miss) S. A. See Orndorff, W. R.
- MacPherran, C. C., dehydration of fruits and vegetables, (P.), B., 615.
- McPherson, A. T., density and electrical properties of the system, rubber-sulphur. I. Density of rubber-sulphur compounds, B., 916.
- McPherson, A. T. See also Curtis, H. L.
- Maq, A., unsaturated aliphatic nitriles, A., 652.
- MacRae, D., Richardson, H. K., and Westinghouse Lamp Co., getter [for incandescence lamp filaments] and its application, (P.), B., 450.
- MacRae, D., and Westinghouse Lamp Co., electric incandescence lamp, (P.), B., 634.
- McRoberts, L. H. See Remington, R. E.
- McSwiney, B. A., and Newton, W. H., effect of hydrogen-ion concentration on smooth muscle, A., 694.
- McSwiney, D. J., heat transfer in [glass] furnaces, B., 219.
- Macurevitch, H., action of aromatic amines on thiosemicarbazide, hydrazodithiocarbonamide, and their derivatives, A., 777.
- crystalline products formed by the action of aromatic amines on thiosemicarbazide and its derivatives, A., 1061.
- McVay, T. N., determination of mullite in porcelain, B., 220.
- Macy, F. S., antidiabetic substance, (P.), B., 734.
- Macy, I. G., Outhouse, J., Graham, A., and Long, M. L., human milk. I. Technique. II. Determination of vitamin-A. III. Determination of vitamin-B, A., 692.
- Macy, I. G. See also Outhouse, J.
- Madaeva-Sitscheva, O. S. See Nametkin, S. S.
- Maddison, R. E. W. See Allmand, A. J.

- Madelung, W., Reiss, E., and Herr, E., organo-metallic syntheses of triphenylamine and triphenylmethane derivatives, A., 657. relation between blue additive compounds and blue oxidation products of substituted di- and tri-phenylamines, A., 657.
- Madelung, W., and Völker, F., coloured salts of the di- and tri-phenylmethane series. II., A., 54. coloured salts of the di- and tri-phenylmethane series. III. Basic coloured salts of diphenylmethane derivatives in which the central carbon atom is united to hydrogen or an aliphatic residue, A., 146.
- Madenwald, F. A., Henke, C. O., and Brown, O. W., catalytic activity of lead, A., 737.
- Madgin, W. M., and Briscoe, H. V. A., temperature effects of mixing liquids, A., 521.
- Madgwick, E., β -ray spectrum of radium-E, A., 1120. absorption and reduction in velocity of β -rays on their passage through matter, A., 1120.
- Madorsky, S. L., and Gathmays Research Corporation, apparatus for production of pure metal, (P.), B., 970.
- Madsen, C. P., and Madsenell Corporation, electro-deposition of metals, (P.), B., 82*.
- method and means for electrodepositing nickel metals and the resulting products; means for electrodepositing metals, (P.), B., 116.
- Madsenell Corporation. See Madsen, C. P.
- Maeda, T., aqueous vapour pressure of magnesium oxychloride cement, and the state of the water contained in the latter, B., 366. hardening of magnesium oxychloride cement, and the function of free water, water of crystallisation, and adsorbed water, B., 366. colloidal theory of cements, B., 602.
- Maeder, H. See Merck, E., Chem. Fabr.
- Maeder, R. See Casparis, P.
- Maffei, E. See Thomas, P.
- Magaram, M., and Engelhardt, W., influence of starch injection on blood amylase, A., 697.
- Magath, T. B., and Sheard, C., spectrophotometric analysis of blood-serum in normal and pathological conditions. I., A., 373.
- Magers, E. J., crude fibre in food, B., 890.
- Magers, E. J., and Gibson, R. B., optical activity and reducing power of dextrose excreted by renal diabetics, A., 1216.
- Maggs, P. T. See Bywaters, H. W.
- Magill, P. L. See Huggins, M. L.
- Maginnis, M. F., manufacture of artificial fuel, (P.), B., 290.
- Magnanini, G., Bohr's model and the supposed coloration of the ions, A., 185.
- Magnesit-Industrie Akt.-Ges., calcining magnesite, (P.), B., 389, 482.
- Magness, J. R. See Haller, M. H.
- Magnus, A., adsorption. XI. Kinetic theory of gas adsorption, A., 105.
- Magnus, A., and Kälberer, W., adsorption. XII., XIII. Heat effect of adsorption of carbon dioxide, A., 928.
- Magnus, P., manufacture of artificial leather, (P.), B., 150*.
- Maguet, M., and Société Anonyme des Chaux et Ciments de Lafarge et du Teil, [granulation] treatment of slags by fluids under pressure, (P.), B., 444*.
- Mahadevan, C., pleochroic haloes in oordicrite, A., 956.
- Mahboub, A. Z. See Scheibler, H.
- Mahle, L. W. See Gannon, J. J.
- Mahler, G. T. See New Jersey Zinc Co.
- Mahler, M. See Gränacher, T.
- Mahler, P. See Darco Sales Corporation.
- Mahn, H. See Abderhalden, E., and Maurer, K.
- Mai, J., tetraphosphorus di-iodide triselenide, A., 1156.
- Maior, C. G., producing small bubbles of gas in liquids by submerged orifices, B., 895.
- Maier, C. J., and Ralston, O. C., gaseous reduction of zinc [oxide], B., 680.
- Maier, F. See Egger, F.
- Maige, A., digestion of starch in vegetable cells, A., 383.
- Mailänder, R., hot-shortness of brass, B., 255.
- Maihe, A., bleaching cracked oils and oils produced by catalytic processes, (P.), B., 291. extraction of paraffin wax from brown coal, (P.), B., 548. deodorisation and decoloration of the phenols in lignite oils, B., 807. decomposition of vegetable waxes, B., 821.
- Mailliard, E. See Bohon, E.
- Mailliard, P. See Bohon, E.
- Main, E. R. See Locke, A.
- Mair, B. J. See Mehl, R. F.
- Mair, D. B., continuity of existence [of electrons], A., 181.
- Mair, J. A. See Robertson, J. McG.
- Maitland, H. T., and Sun Oil Co., manufacture of non-emulsifiable mineral oil of high dielectric strength, (P.), B., 181.
- Maitland, P., and Tucker, S. H., dicarbazyls. III. Oxidation of carbazole and *N*-alkylcarbazoles in acid solution, A., 776.
- Maiwald, K., effect of large applications of potassium and chlorine on the growth, leaf colour, and yield of potatoes; chlorosis as a disturbance of ionic equilibrium in plants, B., 565.
- Majewski, T. See Przylecki, S. J.
- Majima, R., and Hoshino, T., mechanism of the Grignard reaction in the indole series, A., 1098.
- Majima, R., and Simanuki, H., action of thionyl chloride on polyhydric alcohols, A., 337.
- Major, J. L., and Taylor, B., distillation or evaporation of liquids [tar, petroleum], (P.), B., 183*.
- Major, R. T., aminobenzoate of thiodiglycol [$\beta\beta'$ -dihydroxy-diethyl sulphide] and its sulphonate; new higher homologue of $\beta\beta'$ -dihydroxydiethyl sulphide, A., 766.
- Major, R. T. See also Jones, L. W.
- Majumdar, K., absorption spectrum of nickel, A., 5.
- Makarevskaya, E. A. See Aleksandrov, V. G.
- Maki, T. See Bucherer, H. T.
- Makino, H. See Shinosaki, H.
- Makio, S., mercurous sulphate electrode for testing storage batteries, B., 913.
- Makovecki, A. E., rate of dissolution, A., 732. molecular structure of elements and compounds. I. and II., A., 500.
- Maksimenko, M. S., production of titanium carbide, B., 701.
- Maksimenko, M. S., and Eliseev, A., chlorination of titanium carbide, B., 701.
- Malachowski, R., and Kalinski, T., β -chloroglutaconic anhydride, A., 229.
- Malan, J., and Robinson, R., facile ring-closure to a derivative of dihydroisoquinoline contrasted with the difficulty of analogous formation of a derivative of isoindole, A., 1199.
- Malaprade. See Travers, A.
- Malcolm, J. See Carter, C. L.
- Malcolmsen Engineering & Machine Corporation. See Komarek, G.
- Malet, G. See Chuit, P.
- Malevinskaja, E. T. See Rodionov, V. M.
- Malfitano, G., and Sigaud, M., complexity and micelles; ferric hydroxide sol as a typical example of the colloidal state, A., 412. complexity and micelles, A., 412, 511.
- Malinowski, A., free quartz in feldspar, B., 220. agreement of ground coat and enamel, B., 442. defects in enamel due to cast iron, B., 749.
- Malinowski, A. E., motion of electrons in metallic conduction, A., 504.
- Malkina-Okun, R. See Schlesinger, N.
- Malkova-Janovskaja. See Bobtelsky, M.
- Mallabar, H. J., duplex photographic emulsion, B., 203.
- Mallet, L., luminescence phenomena during oxidation reactions in aqueous solutions, A., 811.
- Mallet, M., separation of [liquid] hydrocarbons from mineral matter, (P.), B., 273. apparatus for the production of ammonium sulphate from liquid ammonia, (P.), B., 601.
- Mallick, H. See Wolff & Söhne, G.m.b.H., P. J.
- Mallison, H., determination of the softening point of pitch and asphalt by Kraemer and Sarnow's method, B., 742.
- Mallison, H., and Soltau, F., viscosity curve of coal tar and the question of its mathematical validity, B., 517.
- Mallo, A. See Del Campo, A.
- Malloek, A., stresses involved in tests of hardness, and a table of the comparative hardness of certain metallic elements, A., 300. hardness of alloys, A., 508. friction of solids, A., 823. consistence of mixtures of true fluid and of a fluid with solid particles, A., 1138.
- Malmberg, C. J. G., and Holmström, J. G., apparatus for determining the percentage of carbon in iron or steel, (P.), B., 416*.
- Malnić, E. See Gebauer-Fülneegg, E.

- Malquori, G., system $\text{Al}(\text{NO}_3)_3\text{-KNO}_3\text{-H}_2\text{O}$, A., 518.
 system $\text{AlCl}_3\text{-KCl-H}_2\text{O}$ at 25° , A., 628.
 systems $\text{AlCl}_3\text{-HCl-H}_2\text{O}$, $\text{KCl-HCl-H}_2\text{O}$, and $\text{KNO}_3\text{-HNO}_3\text{-H}_2\text{O}$ at 25° . III., A., 628.
 system $\text{Fe}(\text{NO}_3)_3\text{-Al}(\text{NO}_3)_3\text{-H}_2\text{O}$ at 25° , A., 940.
 aluminium nitrate hydrates, A., 949.
 system $\text{Fe}(\text{NO}_3)_3\text{-KNO}_3\text{-H}_2\text{O}$ at 25° , A., 1142.
- Malquori, G. See also Parravano, N.
- Maltaner, E. See Wadsworth, A.
- Malvezin, P., action of formaldehyde on sodium hydroxide, A., 1172.
 possibility of protecting wines from secondary fermentations by means of "vaccines" prepared with the aid of cultures of *Saccharomyces ellipsoideus* and some cases of apparent inefficacy of this method, B., 612.
- Mameli, E., 1:3-benzoxazines. II. Conversion of isonitroso-coumaranones into derivatives of 1:3-benzoxazine, A., 163.
 mercuration in the aromatic series. VI. Mercurated derivatives of *o*-cresol, A., 268.
- Mameli, E., and Filippi, E., biothermic action of organic compounds, A., 172.
- Mancau, E., scientific control in the preparation of bottled champagne, B., 235.
- Mancher, J. V., jun. See Forbes, E. B.
- Manchester, T. C., pasteurisation, sterilisation, or similar heat treatment of milk and other liquids suitable for food, (P.), B., 26.
- Manchot, W., univalent iron, cobalt, and nickel, A., 33.
- Manchot, W. [with König, J., and Reimlinger, S.], compound of sulphur trioxide with nitric oxide; theory of the lead chamber process, A., 32.
- Manchot, W., and Gall, H., univalent manganese, A., 220.
- Manchot, W., and Kaess, F. [with Schmid, H.], univalent iron, cobalt, and nickel. II., A., 1157.
- Manchot, W., and König, J., rôle of carbon monoxide in the preparation of ruthenium trichloride, A., 123.
 silver sulphate-carbon monoxide, A., 1155.
- Manchot, W., and Pfäum, W., chemical equivalence of carbon monoxide and nitric oxide, A., 1155.
- Manchot, W., and Sherer, O., determination of carbon monoxide by titration with silver solution, A., 331.
- Mancini, M. A., methods of destroying organic matter in the chemical and biological analysis of poisons, A., 173.
- Mancke, R., fat metabolism. VIII. Behaviour of cetyl acetate in the animal body, A., 275.
- Manecke, W., and Volbert, F., determination of the constitution of tung oil fatty acids by spectroscopic methods, B., 821.
- Manegold, E. See Bjerrum, N.
- Manés, L. F. See Owen, B. J.
- Manfred, O., [pressing devices for use in the] production of artificial horn and goods made therefrom, (P.), B., 565.
- Manfred, O., and Obrist, J., influence of plasticising on the mechanical-elastic properties of artificial and natural plastic substances. I., A., 514.
 influence of plasticising on the mechanical-elastic properties of artificial and natural plastic substances. II. Artificial resins, B., 563.
 influence of plasticising on the mechanical-elastic properties of artificial and natural plastic substances. III. Cellulose materials, B., 838.
- Manfred, O. See also Obrist, J.
- Mang, W., titration acidity and true acidity, A., 35.
- Mangels, C. E., factors affecting the diastatic activity of wheat flour, B., 202.
 relation of protein content to baking quality of flour from hard red spring and durum wheats, B., 202.
- Manicke, P., and Lauth, H., toxicological determination of tin, A., 482.
- Manicke, P. See also Bauer, K. H.
- Manin, Y. See Levaditi, C.
- Manjean, (Mlle.) S. See Desgrez, A.
- Manjunath, B. L., synthetical experiments in the carbazole series, A., 978.
- Manley, C. H., rapid method for the sorting of butters and margarines, B., 226.
- Manley, F. T., and Texas Co., apparatus for the distillation of oil, (P.), B., 806.
- Manley, F. T. See also Holmes, R. C.
- Manley, J. P. See Schlegel, J. W.
- Manlove, Alliott & Co., Ltd. See Alliott, E. A.
- Mann, C. E. T., physiology of the nutrition of fruit trees. I. Effects of calcium and potassium starvation, A., 283.
- Mann, C. E. T. See also Wallace, T.
- Mann, F. C. See Sheard, C.
- Mann, F. G., tetrachloro(triaminopropane- γ -monohydrochloride)-platinum, an optically active complex salt of a new type, A., 754.
- Mann, F. G., and Pope, (Sir) W. J., novel type of optically active complex metallic salt, A., 296.
- Mann, F. G. See also Kipping, F. B.
- Mann, J. C., influence of humidity on the breaking load of cotton at 20° , B., 870.
- Mann, J. C. See also Butler, T. H.
- Mann, R. J. See British Celanese, Ltd.
- Mannebeck, C., dielectric constant and Stark effect for polyatomic dipolar gases with symmetrical molecules according to the wave-mechanics, A., 180.
 dielectric constant and the wave-mechanics, A., 920.
- Mannesmann, A. See Allgemeine Kommerzges. A.-G.
- Mannich, C., the two racemic forms of 2-dimethylaminomethylcyclohexanol, A., 659.
 preparation of aromatic carboxylic esters of alkoxy- and dialkoxy-aryldialkylaminopropyl alcohols, (P.), B., 507.
 manufacture of cyclotrimethylenearylpyrazolones [1-aryl-3:4-trimethylene-5-pyrazolones], (P.), B., 869.
 manufacture of alkyl and aralkyl derivatives of cyclotrimethylenearylpyrazolones [1-aryl-2-alkyl- or aralkyl-3:4-trimethylene-5-pyrazolones], (P.), B., 869.
- Mannich, C., and Curtaz, K., synthesis of γ -ketoalkylamines from β -ketonic acids, amines, and formaldehyde, A., 231.
- Mannich, C., and Gollasch, T., intramolecular alkylation with the bromination of δ -unsaturated ketonic bases, A., 572.
 albumose component of Argemum proteinicum, B., 427.
- Mannich, C., and Merz, K. W., homoeugenol (2-methoxy-4- Δ^8 -butenylphenol), A., 555.
 phenolic bases derived from γ -phenylisobutylamine, A., 555.
- Mannich, C., and Walther, O., derivatives of phthalamic acid and phthalimide, A., 562.
 synthesis of papaverine and allied compounds, A., 579.
- Manning, F. W., continuous filtration, (P.), B., 33.
 continuous counter-current pressure filtration, (P.), B., 33.
 dewatering, compressing, and drying industrial wastes and sewage solids, (P.), B., 62.
- Manning, H. M. See Menten, M. L.
- Manning, R. J., decomposition of hexosephosphates by *Bacillus coli communis*, Escherich, A., 484.
- Mansfield, D. E. See General Rubber Co.
- Manske, R. H. F., Perkin, W. H., jun., and Robinson, R., harmine and harmaline. IX. Synthesis of harmaline, A., 265.
- Manske, R. H. F., and Robinson, R., decomposition of β -3-indolylpropionic azide, A., 256.
- Manske, R. H. F. See also Asahina, Y., and Lapworth, A.
- Manss, W. A., and Du Pont de Nemours & Co., E. I., production of indophenol compounds, (P.), B., 810.
- Mantelet, G., determining the melting point of metals, (P.), B., 225.
- Mantell, C. L., and King, W. G., jun., reversed potentials in the corrosion of tin plate, B., 632.
- Mantell, C. L. See also Fink, C. G.
- Manufactures de Machines Auxiliaires pour l'Électricité et l'Ind., means for heating by oil circulation, (P.), B., 321.
- Manufactures de Produits Chimiques du Nord Établ. Kuhlmann, mechanical ore-roasting furnace, (P.), B., 912.
- Manufacturing Improvement Corporation. See Brown, C. A.
- Manz, H., precipitating from water material forming boiler scale, (P.), B., 622.
- Manzano, F. See Del Campo, A.
- Maracineanu, (Mlle.) S., radioactivity of lead exposed for a long period to solar radiation, A., 605.
 radioactivity of matter exposed for a long period to solar radiation, A., 710.
 special effects of polonium, solar radiation, and high tens on on lead, A., 807.
- Marañón, J., bitter principle of makabuhay, *Tinospora Rumphii*, Boerlage, A., 1175.
- Marcelet, H., chemical analysis of mud collected on the upper terrace of the Musée Océanographique at Monaco, after the storm on October 31, 1926, A., 1049.
 heats of combustion of some oils from marine animals, B., 304.

- Marcelet, *H.*, determination of some physical constants of marine animal oils, *B.*, 754.
- Marcelet, *H.* See also Lumet, *G.*
- Marchal, (*Mlle.*) *G.* See Matignon, *C.*
- Marchant, *C.*, coal washing apparatus, (*P.*), *B.*, 625.
- Marchart, *G.* See Sigmund, *F.*
- Marchlewski, *L.* See Kwieciński, *L.*
- Marcille, *R.*, separation of alkaloids, particularly of morphine, from visceral extracts, *A.*, 683.
- use of alkaloid reagents in presence of sulphuric acid, *A.*, 683.
- Marconi's Wireless Telegraph Co., Ltd., and Ranger, *R. H.*, writing fluids, (*P.*), *B.*, 531.
- Marconi's Wireless Telegraph Co., Ltd. See also Ranger, *R. H.*
- Marcowicz, *E.* See Meyer, *J.*
- Marcusson, *J.*, lignin and oxycellulose theory [of coal formation], *B.*, 129.
- determination of [hard] asphaltum content of mineral oils, *B.*, 402.
- chemical constituents of lignites, *B.*, 898.
- Marcusson, *J.*, and Picard, *M.*, determination of acid and fat content of casein, *B.*, 264.
- acid and fat content of [technical] caseins, *B.*, 890.
- Marden, *J. W.*, and Rentschler, *H. C.*, metallic thorium, *B.*, 193.
- Marden, *J. W.*, and Rich, *M. N.*, vanadium, *B.*, 657.
- Marden, *J. W.*, Thomas, *T. P.*, Conley, *J. E.*, and Westinghouse Lamp Co., activation [of thermionic valve filaments] by means of hydrogen-free, carbon-bearing gas, (*P.*), *B.*, 529.
- Marden, *J. W.*, and Westinghouse Lamp Co., reduction of rare metal oxides, (*P.*), *B.*, 46.
- Marden, *J. W.* See also Rentschler, *H. C.*
- Mardick, *J. R.*, and Union & Carbon Research Laboratories, Inc., making aluminium halides and alkaline-earth metal carbides, (*P.*), *B.*, 11.
- Mardles, *E. W. J.* See Fowler, *N. R.*
- Marenzi, *A. D.* See Houssay, *B. A.*
- Marescotti, *A.* See Rossi, *G.*
- Marette, *J.*, and Pathé Cinéma (Anc. Établ. Pathé Frères), anti-static photographic film, (*P.*), *B.*, 622*.
- Margaillan, *L.*, grape seed oil, *B.*, 706, 945.
- Margenau, *H.*, Zeeman effect in the cerium spectrum between 3000 and 5000 Å., *A.*, 1119.
- Margosches, *B. M.*, and Frischer, *M.*, reactivity of chloramine (sodium salt of *p*-toluenesulphochloroamide) with fats, *B.*, 727.
- Margosches, *B. M.*, and Fuchs, *K.*, possibility of a direct determination of the saturation capacity for halogen of the alkali salts of fatty and resin acids, *A.*, 551.
- Margosches, *B. M.*, Fuchs, *K.*, and Ruziczka, *W.*, degree of saturation of the resin acids. I., II., and III., *B.*, 228, 371, 755.
- Marhenkel, *E.* See Scheibler, *H.*
- Marian, *S.*, production of felting from non-felting animal hairs, (*P.*), *B.*, 825.
- Marie, *C.*, and Bertheloot, *J.*, two sources of error in the electrolytic determination of nickel in presence of iron, *A.*, 37.
- Marie, *C.*, and Bufat, *A.*, electrolysis of copper in presence of gelatin, *A.*, 840.
- Marietta Manufacturing Co. See Burgess, *M. L.*
- Mariller, purification and drying of potato starch, *B.*, 711.
- Marinesco, *N.*, properties of large molecules in solution, *A.*, 17.
- ideal solutions; perisphere constant, *C*, *A.*, 625.
- adsorption on dissolved molecules, *A.*, 1135.
- Marinesco, *N.* See also Delaplace, *R.*
- Mario, *M.*, investigation of asparaginase in the testicles of the calf, *A.*, 168.
- Marion, rapid determination of the [weight of] dry gluten, *B.*, 501.
- Marion Steam Shovel Co. See Kinnear, *H. B.*
- Maris, *H. B.*, photo-elastic properties of transparent cubic crystals, *A.*, 1130.
- Marjanović, *W.*, determination of sulphate ion as barium sulphate, *A.*, 744.
- Marjin, *V.* See Krestinski, *V. N.*
- Mark, *A. R. F.*, van der, and Kremer, *H.*, manufacture of rubber products, (*P.*), *B.*, 452.
- Mark, *H.*, atomic structure and the quantum theory. I., *A.*, 87.
- Röntgenographic elucidation of the structure of organic substances, particularly those of high mol. wt., *A.*, 136.
- Marker, *R.* See Kharasch, *M. S.*
- Markl, *J.*, Joachimstal pitchblende residues and their capacity for emanating, *A.*, 182.
- Markowitz, *J.*, and Campbell, *W. R.*, fate of dihydroxyacetone in the animal, *A.*, 693.
- Markowitz, *J.* See also Campbell, *W. R.*
- Marks, *A.*, and United States Metals Refining Co., manufacture of unburned refractory brick, (*P.*), *B.*, 189.
- Marks, *A.* See also United States Metals Refining Co.
- Marks, *H. P.*, and Morgan, *W. T. J.*, influence of hexosediphosphoric acid and hexosemonophosphoric acid on insulin hypoglycæmia, *A.*, 701.
- Marks, *H. P.* See also Bodó, *R. von.*
- Marks, *S.* See Morrell, *R. S.*
- Markwood, *L. N.*, isolation of the oil and alkaloids of stavesacre seed (*Delphinium staphisagria*), *A.*, 1227.
- Marley, *S. P.* See Stevens, *D. R.*
- Marling, *P. E.*, and Purdy, *J. M.*, effect of thinners on the consistency of nitrocellulose solutions, *B.*, 822.
- Marling, *P. E.* See also Evans, *W. L.*
- Marlor, *L. H.* See Allman, *P.*
- Marlow, *J.*, tunnel ovens or tunnel kilns for use in the manufacture of tiles, pottery, and other ware, etc., (*P.*), *B.*, 815.
- Marqueyrol, *M.*, and Toquet, *L.*, "potassium chlorate method" of determining manganese, *A.*, 1162.
- analysis of iron and steel; determination of silicon, phosphorus, sulphur, and manganese, *B.*, 751.
- Marr, *R. A.*, and Ramar Syndicate, Inc., manufacture of pulp or fibrous material, (*P.*), *B.*, 295.
- Marrack, *J.*, and Hewitt, *L. F.*, effect of hydrogen-ion concentration and protein concentration on the osmotic pressure of serum-proteins, *A.*, 1103.
- Marrian, *G. F.* See Baker, *L. C.*, and Drummond, *J. C.*
- Marris, *H. C.* See Ross, *H. C.*
- Marryat, *C. B.* See Hanson, *D.*
- Mars, *G.*, low-temperature carbonisation, (*P.*), *B.*, 626.
- Marschall, *C. H.*, action of sulphuric acid on perylene, *A.*, 350.
- elimination of sulphonic acid groups in anthraquinone derivatives, *A.*, 972.
- process of reducing vat dyes to their leuco-derivatives, (*P.*), *B.*, 550.
- synthesis of isoviolanthrone (isodibenzanthrone), *B.*, 646.
- manufacture of perylene, (*P.*), *B.*, 773*.
- [manufacture of] black sulphurised naphthol dyes, (*P.*), *B.*, 870*.
- Marsden, *A.*, deposit on an underground gas main, *B.*, 641.
- Marsh, *C. T. N.* See Kerr, *R. H.*
- Marsh, *J. K.*, anticathodic luminescence of organic compounds, *A.*, 292.
- Marsh, *M.* See Drinker, *K. R.*, and Thompson, *P. K.*
- Marsh, *R.* See Towler, *W. T.*
- Marshall, *A. C.* See Gordon, *P. F.*
- Marshall, *A. G.*, and Barton, *C. H.*, lubricating oils; laboratory tests in relation to practical results, *B.*, 400.
- Marshall, *A. L.*, synthetic formaldehyde from carbon monoxide and hydrogen; mechanism of the sensitised photochemical reaction, *A.*, 216.
- Marshall, *C. E.*, recent researches on soil colloids, *B.*, 611.
- Marshall, *C. E.*, and Page, *H. J.*, origin of humic matter, *A.*, 388.
- Marshall, *E. G.* See Caswell, *R. G.*
- Marshall, *F. D.*, apparatus and method for the distillation or heat treatment of carbonaceous and other materials, (*P.*), *B.*, 244.
- distillation or heat treatment of carbonaceous and other materials and manufacture of briquettes, (*P.*), *B.*, 244.
- Marshall, *J.*, and Du Pont de Nemours & Co., *E. I.*, low-density dynamite, (*P.*), *B.*, 238.
- Marshall, *J.*, and Sutherland, *B. P.*, effectiveness of laboratory rectifying columns, *A.*, 641.
- Marshall, *M. J.* See Keyes, *F. G.*
- Marshall, *P. G.* See Ingold, *C. K.*
- Marshall, *S.* See Gregory, *H.*
- Marshall, *S. M.*, and Orr, *A. P.*, relation of plankton to chemical and physical factors in the Clyde sea area, *A.*, 747.
- Marson, *C. B.*, and Cobb, *J. W.*, influence of atmosphere and temperature on scaling of steel. I. Scaling by air, water vapour, and carbon dioxide, *B.*, 367.
- Marston, *H. A.*, rotary drying apparatus, (*P.*), *B.*, 511.
- Marston, *H. R.*, milk of the monotreme, *A.*, 272.
- acceleration of enzymic synthesis of proteins by lipoidal emulsions, *A.*, 278.
- Marten, *E. A.*, Sherrard, *E. C.*, Peterson, *W. H.*, and Fred, *E. B.*, production of lactic acid by fermentation of wood sugar remaining after alcoholic fermentation, *B.*, 889.

- Martens, *R.*, determination of amino-acids and polypeptides in the products of protein digestion, *A.*, 687.
- Martin, *C. de C.* See Taylor, *J.*
- Martin, *C. J.* See Lepper, *E. H.*
- Martin, *F.* See Pinkus, *A.*
- Martin, *F. D.* See Mellon, *M. G.*
- Martin, *F. E.*, atomiser for [corrosive] liquids, (*P.*), *B.*, 801.
- Martin, *G.*, ageing properties of raw and vulcanised rubber, *B.*, 341.
- theory of fine grinding. VI. Diameters of irregularly shaped crushed sand particles lifted by air currents of different speeds and different temperatures, *B.*, 623.
- refractory linings for cement kilns, *B.*, 723.
- manufacture of lime, gypsum, calcareous and/or aluminiferous cements, etc., and/or calcination of ores, etc., and kilns therefor, (*P.*), *B.*, 815.
- Martin, *G.*, Bowes, *E.*, Coleman, *E. H.*, and Littlewood, *T. H.*, theory of fine grinding. V. Existence and preparation of statistically homogeneous grades of crushed sand, *B.*, 543.
- Martin, *G.*, and Taylor, *J. D.*, [rotary] furnaces, (*P.*), *B.*, 239.
- Martin, *G.*, Turner, *P. B.*, and Linstead, *F.*, theory of fine grinding. VII. Efficiency of grinding machines and grinding media, with special reference to ball and tube mills, *B.*, 623.
- Martin, *G.*, and Watson, *W.*, theory of fine grinding. IV. Air analysis of large quantities of crushed sand, *B.*, 543.
- Martin, *G.*, Watson, *W.*, and Bowes, *E.*, theory of fine grinding. VIII. Variation in sp. gr. of quartz sands on prolonged grinding, *B.*, 623.
- Martin, *H. S.* See Gell, *P. V. W.*
- Martin, *J.*, device [grate] for burning solid fuels, (*P.*), *B.*, 549.
- Martin, *Jerome*, volumetric determination of azoimide by oxidation with ceric sulphate in acid solution, *A.*, 1046.
- Martin, *J. H.*, carotting fur; preparation of fur for shrinking and felting, (*P.*), *B.*, 599.
- Martin, *K.* See Goldschmidt, *S.*
- Martin, *L. H.*, efficiency of *K*-series emission by *K*-ionised atoms, *A.*, 803.
- absorption of X-rays of long wave-length, *A.*, 912.
- Martin, *W.* See Wilke, *E.*
- Martineau, *L. H. J. M.*, preventing the rusting of iron and steel in contact with water and hydrocarbons, (*P.*), *B.*, 256.
- Martinez, *H.*, and Kirk, *R. H.*, crushing and mixing mills of the edge-runner type, (*P.*), *B.*, 895.
- Martini, *A.*, sensitive microchemical reactions for cadmium salts, *A.*, 953.
- Martino, *G.*, differences in chemical and biological behaviour of surviving muscle of different kinds of fish. II. Fresh-water fish, *A.*, 274.
- Martinson, *E.*, micro-determination of sugar in blood, *A.*, 787.
- Martland, *M.*, and Robinson, *R.*, possible significance of hexose-phosphoric esters in ossification. VII. Bone phosphatase, *A.*, 699.
- Martland, *M.* See also Lepper, *E. H.*
- Martus, *M. L.*, and Becker, *E. H.*, [separator for] primary cell; manufacture of primary cells, (*P.*), *B.*, 882.
- Martyn, *T. G.*, wet separation of constituents of mineral and other pulp, (*P.*), *B.*, 319, 544.
- Martz, *R. J.* See Bohn, *R. T.*
- Marum, *E.* See Goldschmidt, *H.*
- Marvel, *C. S.*, Bailey, *C. F.*, and Sparberg, *M. S.*, synthesis of taurino, *A.*, 863.
- Marvel, *C. S.*, and Gillespie, *H. B.*, identification of amines. III. Toluene- ω -sulphonamides, *A.*, 66.
- Marvel, *C. S.*, Hager, *F. D.*, and Coffman, *D. D.*, reaction between lithium *n*-butyl and organic halogen compounds, *A.*, 1059.
- Marvel, *C. S.*, Zartman, *W. H.*, and Bluthardt, *O. D.*, halogenated tertiary amines, *A.*, 1064.
- Marvel, *C. S.* See also Merchant, *R.*
- Marwedel, *J. E.*, Looser, *J.*, and Rhenania Verein Chemische Fabriken Akt.-Ges., process for making barium carbonate, (*P.*), *B.*, 189*.
- Marx, *A.*, recovery of fats by extraction with volatile solvents, from emulsions stabilised with solid material, (*P.*), *B.*, 530.
- Marx, *H.*, inorganic constituents of the pancreas and suprarenals, *A.*, 371.
- Marx, *R. J.*, clarification of liquids and recovery of the solid matter contained therein, (*P.*), *B.*, 591.
- Marzari, *M.* See Rossi, *G.*
- Mascarelli, *L.*, diphenyl and its derivatives; interpretation of the phenomena of optical isomerism, *A.*, 1180.
- Mascherpa, *P.*, excretion of nickel and cobalt, *A.*, 992.
- Maschinenbau-Aktien-Gesellschaft vorm. Breitfeld, Daněk & Co.; and Plochmann, *G.*, production of water-resistant fuel briquettes, (*P.*), *B.*, 577.
- Maschinenbau-Anstalt Humboldt, production of fertiliser from lignite ash, (*P.*), *B.*, 423.
- treatment of potatoes in the production of starch, (*P.*), *B.*, 888.
- Maschinenfabriken Benninger Akt.-Ges., apparatus for mercerising fabrics, (*P.*), *B.*, 72*.
- Maschinenfabriken Esslingen, making grey-iron castings of any desired structure, (*P.*), *B.*, 560.
- Maschinenfabriken Ing. H. Simmon, exchange of heat between gaseous, vapour-like, or liquid materials, (*P.*), *B.*, 434.
- Maschmann, *E.*, 6-methoxyquinoline, *A.*, 158.
- Mase, *R. P.*, determination of [a constituent of] gas [mixtures], (*P.*), *B.*, 592, 898*.
- Mashino, *M.*, decomposition of soya-bean protein. III. Decomposition with sodium hydroxide. IV., *A.*, 474.
- Mashiyama, *Y.* See Honda, *K.*, and Shoji, *H.*
- Masing, *G.*, calculation of the limiting composition of mixed crystals resistant to chemical action, *A.*, 123.
- thermo-electric power of metallic aggregates, *B.*, 113.
- Masing, *G.*, and Haase, *C.*, electrical conductivity of technical aluminium, *B.*, 112.
- Masing, *G.*, and Koch, *L.*, deoxidation of nickel, *B.*, 113, 657*.
- Masing, *G.*, and Mauksch, *W.*, behaviour of cold-rolled brass in tension and compression, *B.*, 112.
- Masing, *G.* See also Siemens & Halske A.-G.
- Masius, *M.*, factorial functions in entropy calculations, *A.*, 819.
- Maske, *F.*, temperature dependence of the dielectric constants of vapours. I. Benzophenone, *A.*, 920.
- Maskell, *E. J.*, starch production in the leaves of the potato, *A.*, 704.
- Mason, *A. M.* See Cooper, *C. J.*
- Mason, *C. F.* See La Mer, *V. K.*
- Mason, *C. W.*, manufacture of bagasse board, (*P.*), *B.*, 473.
- Mason, *C. W.* See also Audrieth, *L. F.*, Browne, *A. W.*, Chamot; *E. M.*, and Rhodes, *F. H.*
- Mason, *F. A.* See British Dyestuffs Corp., Ltd., and Murphy, *A. J.*
- Mason, *F. E.* See Silver Springs Bleaching & Dyeing Co., Ltd.
- Mason, *J. P.* See Jones, *L. W.*
- Mason, *S. R.*, and Western Electric Co., Inc., cleaning metal, (*P.*), *B.*, 416.
- Mason, *T. N.*, and Wheeler, *R. V.*, inflammation of coal dusts: effect of the chemical composition of the dust, *B.*, 434.
- Mason, *W. D.*, and Standard Oil Co. of California, petroleum distillation, (*P.*), *B.*, 210.
- Massarotti, *R.* See Beretta, *A.*
- Massatsch. See Schittenhelm, *A.*
- Massee, *A. M.* See Gillingham, *C. T.*, and Goodwin, *W.*
- Mastin, *H.*, and Schryver, *S. B.*, donaturation of egg-albumin by weak acids in the presence of salts, *A.*, 65.
- Masumoto, *B.*, camphor series. XI. Synthesis of camphor. II. Preparation of liquid and solid camphenes from pinene hydrochloride by the catalytic elimination of hydrogen chloride with copper oxide, *A.*, 773.
- Masumoto, *H.*, new transformation of cobalt, and the equilibrium diagrams of nickel-cobalt and iron-cobalt, *A.*, 21.
- magnetic, electric, and thermal properties of nickel-cobalt alloys, *A.*, 719.
- electrical and thermal conductivities of carbon steel and cast iron, *A.*, 820.
- Masumoto, *H.*, and Nara, *S.*, coefficient of thermal expansion in nickel-cobalt and iron-cobalt alloys, and magnetostriction of iron-nickel alloys, *A.*, 720.
- Mateyak, *L.* See Grischkevitch-Trochimovski, *E.*
- Mather & Platt, Ltd. See Barclay, *S. F.*
- Mathers, *F. C.*, Hardy, *R. L.*, and National Lime Association; production by carbonation and the addition of sulphates of plastic materials having an initial quick set, (*P.*), *B.*, 45.
- Mathers, *F. C.*, Shirley, *S. C.*, and National Lime Association; dry [quick-setting] lime mixture, (*P.*), *B.*, 110.
- Mathers, *F. C.* See also Briscoe, *H. T.*
- Matheson, *H. W.* See Canadian Electro Products Co., Ltd.
- Mathesius, *H.* See Mathesius, *W.*
- Mathesius, *W.*, and Mathesius, *H.*, manufacture of steel in open-hearth furnaces, (*P.*), *B.*, 911.
- Mathias, *E.*, fulminating matter; spontaneous and almost noiseless decomposition of certain ball-lightnings of great diameter, *A.*, 290.

- Mathieson, E. See Goldschmidt, H.
- Mathieson Alkali Works, production of chromium compounds, (P.), B., 814.
- Mathieson Alkali Works, and Low, F. S., tanning process, (P.), B., 497.
- Mathieson Alkali Works. See also Brooks, B. T., Guyer, J. A., MacMahon, J. H., MacMullin, R. B., Parker, H. O., and Taylor, M. C.
- Mathur, B. N., theory of oil tannage, B., 284.
- Matignon, C., and Marchal, (Mlle.) G., heat of oxidation of beryllium, A., 22.
- reducing properties of beryllium; isolation of barium, magnesium, potassium, and aluminium, A., 430.
- action of calcium, magnesium, and aluminium on beryllia, A., 1155.
- Matignon, C., and Piettre, M., preparation of beryllium chloride, A., 430.
- Matignon, C. See also Florentin, D.
- Matlock, C., and Monroe-Louisiana Carbon Co., production of carbon black, (P.), B., 466, 868*.
- apparatus for separating particles from gases at high temperatures, (P.), B., 467.
- Matossi, F., vibrational energy of the molecules CO and CO₂, A., 93.
- Matossi, F. See also Schaefer, C.
- Matousek, C. L., invertase present in [beet] sugar factory wastewaters, B., 685.
- Matsuda, Y., biochemistry of tooth growth, A., 272.
- Matsukura, S., influence of bile on the digestion of protein by pancreatic juice, A., 278.
- Matsumiya, K., and Nakai, M., organic compounds of arsenic. IV. Reaction between the Grignard reagent and arsenic trisulphide, A., 164.
- Matsumiya, K., and Nakata, H., organic compounds of arsenic. V. Electrolytic reduction of 3-nitro-4-hydroxyphenylarsinic acid, A., 785.
- Matsumura, K., synthesis of quinoline and acridine compounds, A., 467.
- Matsushita, T., and Nagasawa, K., temper-hardening in steels, B., 445.
- mechanism of the tempering of steels, B., 781.
- Matsushita, T. See also Kondo, K.
- Matsuura, R., production of magnesium sulphate from Manchurian magnesite, B., 677.
- Matsuura, S., system dextrose-sodium chloride-water, A., 518.
- Mattauch, J., existence of the sub-electron, A., 87.
- Matte, M. See Michel, A.
- Mattenklott, K., Schramm, H., and Duisburger Kupferhütte, recovery of copper, zinc, and other metals from solutions containing chlorides and sulphates, (P.), B., 785*.
- Matter, H. See Terroine, E. F.
- Matthes, F. See Hernler, F.
- Matthes, H., Thiele's test for arsenic with sodium hypophosphite, A., 36.
- detection of methyl alcohol; replacement of guaiacol by potassium guaiacolsulphonate to avoid errors, A., 66.
- Matthes, H., and Schütz, P., ergot oil, B., 891.
- Matthew, C. W., plasma-proteins of normal dogs, A., 1103.
- Matthew, J. A., extensibility of flax yarns, B., 933.
- Matthews, C. G., and Matthews, G. C., bacterial infection of beers, B., 888.
- Matthews, D. J., temperature and salinity observations in the Gulf of Aden, A., 1050.
- Matthews, F. G., and Aldridge, J. G. W., charging horizontal gas retorts, (P.), B., 100*.
- Matthews, G. C. See Matt Matthews, C. G.
- Matthews, M. A. See Barnett, E. de B.
- Matthews, S. A., and Austin, W. C., blood calcium and tolerance for magnesium; hypercalcaemia induced by the parathyroid hormone, A., 380.
- Matthews, S. A. See also Austin, W. C.
- Matthews Selected Dairies Co. See Spaeth, T. A.
- Matti, J., manufacture of bread, (P.), B., 376.
- Mattick, A. T. R., oiliness in milk, B., 711.
- Mattingley, F. See Wilson, H. F.
- Mattson, S., electrodialysis of the colloidal soil material and the exchangeable bases, B., 22.
- Mattson, S. See also Anderson, M. S.
- Matuyama, Y., electrical resistance of molten metals and alloys, A., 820.
- surface tension of molten metals and alloys, A., 1019.
- Matzka, W., preserving fruit juices and other liquids, (P.), B., 376, 827.
- preservation of eggs or egg products, (P.), B., 827.
- Matzko, S. N. See Lavrov, B. A.
- Matzler, (Frl.) M. See Brunner, K.
- Maubert, A., influence of thorium-X on laccase, A., 483.
- influence of thorium-X on the activity of emulsin, A., 1111.
- Maudsley, R. T. See Packards & J. Fison (Thetford), Ltd.
- Mauge, R., and Richard, J. P., hypersensitisation, B., 238.
- Mauguin, C., refractive indices of a crystalline liquid over its entire range of existence, A., 499.
- Maukseh, W. See Masing, G.
- Maulhardt, J., attempt to prove the use of alcohol in a case of arson, B., 570.
- Maume, L., and Dulac, J., relation of antitoxic power to ionisation, A., 798.
- Maupai, E. L., process of dyeing silk, (P.), B., 775.
- Maurer, E., and Diez, S., iodine as a biological element. IV. Iodine content of colostrum and normal milk, A., 169.
- iodine as a biological element. IX. Acceleration of the growth of young rats by administration of a diet rich in iodine to the lactating mother, A., 481.
- Maurer, H., and Moser, E., indole group. I., A., 255.
- Maurer, K., biochemical conversion of oximinopyruvic acid into alanine, A., 1221.
- Maurer, K., and Mahn, H., new, unsaturated anhydro-sugar, A., 751.
- Maurer, K. See also Brintzinger, H.
- Maurer, O. V., incandescence lamp [filament], (P.), B., 116.
- incandescence lamp, (P.), B., 561.
- Mauri, A., ionometric measurement of the acidity and alkalinity of glasses by means of the Luers quinhydrone potentiometer, B., 523.
- Maurieh, E., production of kinematograph films in natural colours, (P.), B., 621.
- Mausolf, C. See Auwers, K. von.
- Mauss, H. See Auwers, K. von.
- Mauss, W., cake-washing means for rotary vacuum filters, (P.), B., 928.
- Mauthner, F., new resacetophenone, A., 462.
- synthesis of a new gallacetophenone, A., 566.
- synthesis of a new resorcyaldehyde, A., 970.
- synthesis of acetopiperone, A., 972.
- Mautner, P., silicic acid gel and its adsorbability, B., 687.
- Mautner, P. See also Ruff, O.
- Mautner, S. See Holluta, J.
- Max Ams Chemical Engineering Corporation, machine for washing, dyeing, or treating material, (P.), B., 329.
- Maxim, N., action of magnesium organo-derivatives on N-tetraethylphthalimides, A., 458.
- action of magnesium organo-derivatives on N-diethylformamide, A., 866.
- Maximoff, A. T. See Naugatuck Chemical Co.
- Maximoff, J., De Costa, M. S., and Krebs, R. P. D., method and apparatus for refining steel and pig iron, (P.), B., 912.
- Maximov, A. A., deoxidation of potassium, sodium, and lithium permanganates in alkaline solution, A., 218, 742.
- Maxorov, B. See Tschelincev, V.
- Maxton, J. L., effect of fertilisers on germination of seeds, B., 498.
- Maxwell, F., extraction of juice from sugar cane, etc., (P.), B., 500.
- Maxwell, G. B., "pinkings" in internal-combustion engines, B., 242, 737.
- Maxwell, G. B., Payman, W., and Wheeler, R. V., combustion of complex gaseous mixtures. III. Inflammation of mixtures of carbon monoxide and hydrogen with air in a closed vessel, A., 317.
- Maxwell, G. B., and Wheeler, R. V., inflammation of mixtures of the paraffins and air in a closed spherical vessel, A., 1036.
- Maxwell, L. C., Bischoff, F., and Blatherwick, N. R., micro-methods for determination of labile and total sulphur in proteins, A., 486.
- Maxwell, L. C. See also Blatherwick, N. R.
- Maxwell-Lefroy, H., and Graesser-Monsanto Chemical Works, Ltd., exterminating injurious forms of life and composition therefor, (P.), B., 158*.
- Maxwell-Lefroy, H. See also Graesser-Monsanto Chemical Works, Ltd.
- Maxymowicz, W. See Moser, L.
- May, C. J. See Kon, G. A. R., and Linstead, R. P.

- May, O. E., Berliner, J. F. T., and Lynch, D. F. J., vapour pressure. IV. Naphthols, A., 506.
- May, O. E. See also Berliner, J. F. T.
- May, P., determination of sulphur dioxide in dried fruit, B., 502, 973.
- May, R. See Ditz, H., and I. G. Farbenind. A.-G.
- May, R. M., microchemistry of the nervous system; sulphur and phosphorus content of the cerebral hemispheres of the guinea-pig, A., 986.
- May & Baker, Ltd. See Haythoruthwaite, A., Newbery, G., and Stickings, R. W. E.
- Mayen, K. See Hofmann, K. A.
- Mayer, A., liberation of oxygen from fleshy-leaved plants in the absence of carbon dioxide, A., 905.
- Mayer, A. See also Houget, J.
- Mayer, F. See I. G. Farbenind. A.-G.
- Mayer, Fr. See Lendrich, K.
- Mayer, Fritz, Zütphen, J. van, and Philipps, H., preparation of hydrocarbostyryl and its derivatives, A., 573.
- Mayer, H., ionic mobility in gaseous mixtures, A., 1001.
- Mayer, J. E. See Lewis, G. N.
- Mayer, J. L., determination of total citric acid in solution of magnesium citrate, B., 796.
- Mayer, K. See Fodor, A.
- Mayer, L. See Menzione, E.
- Mayer, P., influence of different carbohydrate phosphoric esters on the fermentation of dextrose, A., 902.
- Mayer, R. See Chemische Fabrik auf Aktien (vorm. E. Sebering), and Kahn, M.
- Mayer, V., boiling-up of thin-juice, B., 395.
- Mayhew, Ramsay, & Co., Ltd. See Ramsey, R. K.
- Maynard, L. A., and Miller, R. C., calcification. I. Pigs fed different protein supplements. II. Rats fed menhaden oil and various menhaden fish meals, A., 374.
- Maynard, P., method of making brick or other burned-clay products, (P.), B., 110.
- Maywood Chemical Works. See Weber, F. W.
- Maze, A. E., and Ellis-Foster Co., production of transparent and waterproof paper, (P.), B., 71.
- Maze, C. D., process and apparatus for the purification [desulphurisation] and hydrogenation of liquid hydrocarbons, (P.), B., 180.
- Mazumdar, K. See Saha, M. N.
- Mazza, F. P., constitution and physical properties of vulpinic acid, A., 1072.
- Mazza, F. P. [with Di Mase, G., Calò, A., and Cremona, A.], catalytic reduction of certain hydrophthalic anhydrides, A., 1068*.
- Mazza, F. P., and Calò, A., catalytic reduction of hydrophthalic anhydrides. II. Reduction of $\Delta^{2:6}$ -dihydrophthalic anhydride, A., 664.
- Mazza, F. P., and Crapetta, C., hydroanthranilic acids, A., 662.
- Mazza, F. P., and Cremona, A., catalytic reduction of hydrophthalic anhydrides. III. Reduction of Δ^1 -tetrahydrophthalic anhydride, A., 665.
- Mazza, F. P., and Dello Jojo, G., rotatory dispersion of certain aspartic esters, A., 500.
- Mazza, F. P., and Di Mase, G., catalytic reduction of hydrophthalic anhydrides. I. Reduction of Δ^2 -tetrahydrophthalic anhydride, A., 664.
- Mazza, F. P. See also Piutti, A.
- Mazza, L., products formed during the working of lead accumulators. II., B., 257.
- [crystalline structure of spongy lead, lead peroxide, and lead sulphate] formed during the working of a lead accumulator, B., 659.
- Mazzetti, C., cobalt chloride solutions. III. Absorption spectra. IV. Sodium and cobalt chloride solutions, A., 16.
- mixtures of antipyrine with phenylurethane and with thio-sinamine [allylthiocarbamide], A., 21.
- systems $\text{CoCl}_2\text{-NaCl-H}_2\text{O}$, $\text{CoCl}_2\text{-KCl-H}_2\text{O}$, and $\text{CoCl}_2\text{-BaCl}_2\text{-H}_2\text{O}$ at 20° , A., 22.
- catalytic cracking of heavy fractions of petroleum, B., 5.
- adsorptive properties of an active charcoal, B., 34.
- Mazzocco, P., inorganic constituents of the blood-plasma of dogs after removal of the hypophysis, A., 988.
- Mazzocco, P. See also Houssay, B. A.
- Mazzucchelli, A., and Fatta, A., variations in the b. p. of hydrochloric acid on adding a third substance, A., 1140.
- Mazzucchelli, A., and Romani, B., influence of perchlorate ion on the anodic overvoltage during the electrolysis of sulphuric acid, A., 1145.
- Mazzucchelli, A., and Rossi, A., densities of aqueous solutions of certain univalent perchlorates. II., A., 723.
- Mead, B., and McCoy, J. T., emulsification. I. Oil-soluble emulsifying agents, A., 622.
- Meade, R. K., rotary kilns *versus* shaft kilns for lime-burning, B., 476.
- Meadow, J. R., and Hale, H., chlorine absorption of water, B., 718.
- Meadows, A. See Woodroffe, D.
- Mechlinski, P. See Pringsheim, H.
- Mecke, R., band spectra and the periodic system, A., 495.
- Meckwitz, J. See Menzel, H.
- Medes, G., and Humphrey, G. J., magnesium content of normal rats at different ages, A., 894.
- Medlock, O. C. See Dye, M.
- Medvedev, G. See Kostytshev, S.
- Medvedev, S. S., catalytic oxidation of methane to formaldehyde. I., A., 1165.
- oxidation of santolin. I., A., 1194.
- Medweth, J. See Brunner, K.
- Meehan, F. T., expansion of charcoal on sorption of carbon dioxide, A., 722.
- Meehan, P. A., and American Dressler Tunnel Kilns, Inc., tunnel kiln, (P.), B., 927.
- Meek, S. St. P., method of annealing copper articles, (P.), B., 256.
- Meerburg, P. A., determination of small quantities of iodine, A., 1160.
- Meerwein, H., increase in ionisation of weak electrolytes by complex-formation and its importance for catalytic processes, A., 836.
- Meerwein, H. [with Bräke, H., Komant, W., and Morschel, H.], ring-chain tautomerism in γ -aldehyde-acids and δ -ketoaldehydes, A., 875.
- Meerwein, H. [with Hammel, O., Serini, A., and Vorster, J.], intramolecular displacements of atoms in the camphor series, A., 568.
- Meess, testing glue, B., 453.
- Meetz, A. See Skita, A.
- Meggers, W. F., regularities in the arc spectrum of lanthanum, A., 178.
- structure of the La II spectrum, A., 602.
- Meggers, W. F., and Burns, K., hyperfine structure of lanthanum lines, A., 803.
- Meggers, W. F., and Walters, F. M., jun., absorption spectra of iron, nickel, and cobalt, A., 910.
- Megson, N. J. L. See Carter, S. R.
- Mehl, R. F., and Mair, B. J., compressibility of tellurium, A., 927.
- Mehlitz, A., pectins, B., 345.
- Mehner, H., decomposition of compounds [e.g., alkali silicates], (P.), B., 482.
- production of volatile acids, acid anhydrides, and chlorine, (P.), B., 876.
- Mehring, A. L. See Ross, W. H.
- Mehrotra, M. R., and Sen, K. C., simultaneous adsorption of ions from solution. I. Adsorption of metal ions by hydrated manganese dioxide, A., 408.
- peptisation of ferric and chromic hydroxides in presence of arsenious acid and other substances, A., 624.
- peptisation of metallic hydroxides in the presence of sugars, A., 1025.
- Meier, H. See Fächthauer, C.
- Meigs, J. V., method of forming synthetic resinous materials, (P.), B., 708*.
- Meigs, J. V., and Ellis, C., manufacture of products from aromatic amines and sulphur chloride, (P.), B., 619.
- Meiklejohn, R. M. See General Chemical Co.
- Meiler, L., and Scholler, H., production of glucose [dextrose] from materials containing cellulose, (P.), B., 792*.
- Meinel, K. See Schmidt, Erich.
- Meingast, R., Mudgan, M., and Consortium für Elektrochem. Ind., manufacture of acetic anhydride, (P.), B., 764*.
- Meiro, A., process and apparatus for the fractional distillation at a low temperature of solid fuels, (P.), B., 245.
- distillation of coal tar, tar oils, and similar liquids, (P.), B., 646.
- extraction of crystals from anthracene, naphthalene, and the like distillates of coal tar, (P.), B., 646.
- Meisel, H., and Tiedje, W., crystal structure of hexamminocobaltic iodide, A., 923.

- Meisenheimer, J., substitution and addition, A., 957.
 Meisenheimer, J., and Höring, M., stereochemistry of diphenyl, A., 766.
 Meisenheimer, J., and Jung, H., *l*-arabinal, A., 858.
 Meisenheimer, J., Senn, O., and Zimmermann, P., oximes of *o*-amino-benzo- and -aceto-phenone, A., 1076.
 Meiser, J., silicon construction steel from the Siemens-Martin furnace, B., 334.
 Meisner, N. I. See Heiduschka, A.
 Meissner, A., quartz, A., 1014.
 Meissner, K. L., age-hardening tests with elektron alloys, B., 969.
 Meissner, K. W., series of the argon spectrum, A., 177.
 electrically excited resonance spectrum of argon, A., 705.
 laboratory demonstration of the Zeeman effect, A., 707.
 Meissner, T. See I. G. Farbenind. A.-G.
 Meissner, W., resistance of metals and metal crystals at the temperature of liquid helium, A., 11*.
 Meister, K., drying apparatus, (P.), B., 432.
 Meister, Lucius, & Brüning. See Farbwerke vorm. Meister, Lucius, & Brüning.
 Meiter, E. G. See Coward, H. F.
 Meitner, (Erl.) L. See Laue, M. von.
 Meixner, A., and Kröcker, F., micro-analytical practice in the works, B., 591.
 Melamid, M., preparation of plastic materials, (P.), B., 495.
 manufacture of [phenol-aldehyde] condensation product, (P.), B., 947*.
 Meldau, R. See Linden, (Gräfin) M. von.
 Melin, E., Norrbin, S., and Odén, S., methane fermentation of peat, B., 271.
 Melis, B., two new acids of the cyanic series, A., 346.
 hydro- ψ -thiocyanic acid as a dye for cotton, B., 742.
 Melkus, K. See Kailan, A.
 Mellana, E. See Belasio, R.
 Mellanoff, I. S., digitonin—its properties, isolation, and determination, B., 713.
 properties and constituents of an oil extracted from the seeds of *Digitalis purpurea*, B., 892.
 Melle, F. A. van. See Jaeger, F. M.
 Melley, A. See Knapp, A. W.
 Mellon, M. G., and Martin, F. D., solutions for colorimetric standards. I. Spectral transmission curves for some aqueous solutions containing organic indicators or inorganic salts, A., 329.
 Mellon, M. G., and Morris, V. N., potentiometric titrations with hydrazine sulphate, A., 637.
 Mellor, W. See Lane, H.
 Mellor, Bromley & Co., Ltd., Bromley, T. C., and Green, C. H., liquor circulating means for apparatus wherein articles, materials, or substances are treated with liquids, or wherein liquids are mixed or treated, (P.), B., 433.
 Melms, F., [electrolyte for] electric batteries, (P.), B., 145.
 Melzer, H., antimony white enamel, B., 677.
 Melzer, J. L. See Weiss, R.
 Melzer, W. See Metallbank & Metallurgische Ges. Akt.-Ges.
 Memmen, F. See Willstätter, R.
 Menezel, S., absorption spectra of five-membered heterocyclic compounds, A., 496.
 Mendel, L. B., and Anderson, W. E., diet and body fat, A., 375.
 Mendel, L. B. See also Arnold, R. M., and Osborne, T. B.
 Mendel, W., and Neidieh, S. A., manufacture of filaments and films from viscose, (P.), B., 184.
 dyeing viscose filaments and films, (P.), B., 776.
 Mendelsohn, S., theoretical structure of the correction factor as applied in the menthol assay of peppermint oil; assay of oil of rosemary, B., 796.
 Mendenhall, C. E., and Utterback, C. L., wire method for the m. p. of palladium, A., 926.
 Mendoza, M. See British Dyestuffs Corporation, Ltd., and Perkin, W. H., jun.
 Menell, G., vertical retort for the extraction of oil from bituminous solid fuels such as shale, coal, peat, etc., (P.), B., 644.
 Mengdehl, H. See Gall, H.
 Mengele, J. See Lüers, H.
 Menger, R. See Bettzieche, F.
 Menitoff, A. See Beutner, R.
 Menke, J. B., dehydration by means of acetic anhydride, A., 27.
 reduction with acetic anhydride, A., 131.
 Mennie, J. H. See Maass, O.
 Mennonna, C. See Berlingozzi, S.
 Menon, C. K. See Varma, P. S.
 Menon, K. N., and Simonsen, J. L., reactions of carone, A., 882.
 Menon, K. N. See also Gibson, C. S.
 Mensing, C. E. See Wiley, R. E.
 Mente, O., sensitivity of films free from silver [dichromated gelatin], B., 204.
 Menten, M. L., blood-sugar of cod, sculpin, and pollock during asphyxia, A., 476.
 Menten, M. L., and Manning, H. M., effect of Witte's peptone on blood-sugar, A., 481.
 Mentzel, R. See Hückel, W.
 Menzel, H., new type of thermometer for cryoscopy of aqueous solutions, A., 335.
 boric acids and their alkali salts. I. Free boric acids. II. Alkali borates in aqueous solution, A., 937.
 Menzel, H. [with Meckwitz, J.], boric acids and their alkali salts. III. Solid alkali mono- and poly-borates, A., 1043.
 Menzies, A. W. C., vapour pressure of liquid mercury, A., 1131.
 Menzione, E., and Mayer, L., manufacture of grinding or abrading stones, (P.), B., 76.
 Merchant, R., Wickert, J. N., and Marvel, C. S., bromine derivatives of pentoic and hexoic acids, A., 853.
 Mercier, P., long-range particles emitted by the active deposit of actinium-B + C, A., 4.
 Mercier, R., condensation of vapours and extraction of non-condensable gases, (P.), B., 671.
 Merck, E., and Dützmann, A., preparation of pure *p*-xylene, (P.), B., 324.
 Merck, E. See also Merck, W.
 Merck, E., Chemische Fabrik, Maeder, H., and Krauss, W., preparation of monomethylarylamines, (P.), B., 459.
 Merck, E., Chemische Fabrik, Maeder, H., and Oberlin, M., preparation of derivatives of methylhydrastinine, (P.), B., 572.
 Merck, F. See Merck, W.
 Merck, H. See Schwarz, R.
 Merck, K. See Merck, W.
 Merck, L. See Merck, W.
 Merck, W., Merck, K., Merck, L., Merck, W., and Merck, F., dehydration of ethyl alcohol, (P.), B., 541.
 Meredith, S. C., and Nyborg, N. N. T., manufacture of lactose, (P.), B., 454.
 Merica, P. D., Vanick, J. S., and International Nickel Co., [rustless cast iron] alloy, (P.), B., 415.
 Merjanian, A., vitamin content of grapes and grape wines, B., 89.
 Merkle, M. See Stollé, R.
 Merl, T., black sausages in artificially-coloured skins, B., 122.
 distinction between malt-coffee and cereal-coffee by means of the maltol reaction, B., 122.
 Merle, J., manufacture of metals and objects therefrom, (P.), B., 302.
 Mermod, C. See Kehrmann, F.
 Merrell-Soule Co., method and apparatus for the treatment of milk powder, (P.), B., 265.
 Merrell-Soule Co. See also Hawley, W. G.
 Merriam, H. F., and General Chemical Co., sulphur burner, (P.), B., 482.
 Merrill, A. D., method and apparatus for bleaching pulp, (P.), B., 473.
 Merrill, G. P., stony meteorite from Forkville, Mecklenburg County, Virginia, A., 643.
 Merrill, H. B., effect of enzyme purity on the kinetics of tryptic hydrolysis, A., 76.
 extraction of nitrogenous matter from calf-skins by salt water, B., 285.
 unhairing action of stannous salts, B., 535.
 Merrill, H. B., and Fleming, J. W., action of trypsin on calfskin, B., 342.
 action of trypsin on unlimed calfskin, B., 636.
 Merritt, E., relation between intensity of fluorescence and concentration in solid solutions, A., 91.
 Merte, W., and Kalle & Co. Akt.-Ges., sulphur dye and process of making same, (P.), B., 69*.
 Merten, W. J., wear-resistance of carburised steel *versus* cast high-manganese steel, B., 581.
 Mertens, E., porphyrins, A., 785.
 Mertens, E. See also Schumm, O.
 Mertner, W., molten ammonium chloride, B., 875.
 Merton, T. R., measurement of the intensity of spectrum lines, A., 81.

- Mertz, *P.*, direct measurement of *X*-ray mass scattering coefficient, A., 83.
- Merwin, *H. E.* See Shepherd, *E. S.*
- Merz, *A. R.*, [m. p. of] monopotassium phosphate, A., 717.
- Merz, *K. W.* See Mannich, *C.*
- Merz, *O.*, opaque drying of tung oil, B., 303.
viscosity of nitrocellulose, B., 810.
- Merzbacher, *S.* See D'Ans, *J.*
- Messenger, *H. A.*, significance of certain critical potentials of mercury in terms of metastable atoms and radiation, A., 85.
- Messenger, *O. G.*, and Standard Development Co., treatment of hydrocarbons, (P.), B., 673.
- Messmer, *A.*, and Flubacher-Brodbeck, *M.*, method of preserving fodder, (P.), B., 27.
- Messmer, *E.*, mol. wt. of optically active polyhydroxy-compounds in ammoniacal copper solution (Schweizer's reagent), A., 619.
- Meston, *A. F.*, acids in automobile crank-cases, B., 356.
- Mestre, *R.*, reaction between formaldehyde and sodium hydroxide: formation of reducing substances resembling sugars, A., 960.
use of hyposulphites in the [beet] sugar industry, B., 537, 711.
determination of sulphurous acid in sugar solutions, B., 711.
- Mestrezat, *W.*, and Delavie, *M.*, determination of small quantities of nitrate by means of "fornitral," A., 330.
- Metal Research Corporation. See Parsons, *C. F.*
- Metal & Thermit Corporation. See Lubowsky, *S. J.*, and Schroeder, *C. R.*
- Metallbank & Metallurgische Ges., Akt.-Ges., production by electro-thermic means of aluminium-silicon alloys practically free from carbide, (P.), B., 144.
manufacture of hollow conductors, (P.), B., 258.
process and apparatus for reactivating adsorption media, (P.), B., 287.
process of recovering volatile solvents [without explosions], (P.), B., 319.
desulphurising fine iron pyrites, (P.), B., 369.
insulating compartment in electrical gas purifiers, (P.), B., 391.
copper alloys, (P.), B., 415.
copper-aluminium alloys, (P.), B., 448.
drying fuels in stages by internal heating in a shaft-drier, (P.), B., 466.
production of sulphuric acid, (P.), B., 554.
roasting fine sulphide ores, etc., (P.), B., 659.
purifying aluminium and its alloys, (P.), B., 785.
recovering dissolved substances from solutions, (P.), B., 800.
treating crude oils and fats, (P.), B., 821.
treatment of lithium-containing silicates by means of neutral alkali salts, (P.), B., 842.
electrical precipitation and separation of suspended matter in gases and non-conducting liquids, (P.), B., 849.
low-temperature carbonisation, (P.), B., 960.
- Metallbank & Metallurgische Ges. Akt.-Ges., Deutsche Sprengstoff-Akt.-Ges., Melzer, *W.*, and Boltenstern, *W. von*, production of nitric acid, (P.), B., 813.
- Metallbank & Metallurgische Ges. Akt.-Ges., and Gensecke, *W.*, heat economy in the production of salt, (P.), B., 330.
method of working steam-distillation plants, (P.), B., 688.
- Metallbank & Metallurgische Ges. Akt.-Ges., and Mildner, *F.*, production of rubber mixtures, (P.), B., 853.
- Metallbank & Metallurgische Ges. Akt.-Ges., and Schmiedel, *T.*, production of sulphuric acid, (P.), B., 480.
- Metallbank & Metallurgische Ges. Akt.-Ges. See also Dessauer, *F.*, and Oertel, *R.*
- "Métallique" and "Dural," provision of protective layers on reflecting bodies, (P.), B., 848.
- Metallisation, Ltd. See Cozens, *F. G.*
- Metallisator Berlin, A.-G., production of aluminium coatings on metals, (P.), B., 848.
- Metals Production, Ltd. See Edser, *E.*
- Metals Protection Corporation, protecting iron and steel articles against corrosion, (P.), B., 682.
- Metals Protection Corporation, and Humphries, *C. H.*, welding of iron or steel articles, (P.), B., 116*.
treatment [to prevent corrosion] of iron and steel articles, (P.), B., 560.
- Metals Protection Corporation, and Pierce, *H. C.*, chromium plating, (P.), B., 390.
- Metals Protection Corporation. See also Humphries, *C. H.*, and Pierce, *H. C.*
- Metals Recovery Co. See Bragg, *G. A.*, and Sayre, *R. E.*
- Metcalf, *K. M.* See Talbot, *F. B.*
- Metcalfe, *V. E.*, centrifugal separator, (P.), B., 623.
- Methley, *W. J.* See Alway, *F. J.*
- Metivier, *M.*, production of smoke fumes, using hexachloroethane and chlorinated naphthalene derivatives, (P.), B., 622.
- Metropolitan-Vickers Electrical Co., Ltd., and Alley, *J. D.*, chromium plating, (P.), B., 491.
- Metropolitan-Vickers Electrical Co., Ltd., and Weber, *H. C. P.*, manufacture of resinous compositions, (P.), B., 85.
- Metropolitan-Vickers Electrical Co., Ltd. See also Bradley, *J.*, Davis, *N. R.*, Scanes, *A. B. L.*, and Young, *J. W.*
- Metta, (*Mme.*) *A.* See Gane, *G.*
- Metz, *L.*, testing the stability of nitrocellulose and smokeless powder by N. L. Hansen's hydrogen-ion method, B., 29.
- Metz, *L.* See also Kast, *H.*
- Metz Laboratories, Inc., *H. A.* See Dubin, *H. E.*, and Funk, *C.*
- Metzeler & Co., dyeing of india-rubber, etc., (P.), B., 948.
- Metzger, *F. J.* See California Cyanide Co., Inc.
- Metzger, *R.* See I. G. Farbenind. A.-G.
- Meulen, *H. ter*, apparatus for m. p. determinations, A., 128.
nitrogen balance-sheet in the distillation of tar, B., 469.
improvement in Eschka's determination of sulphur [in coal], B., 545.
permanganate value of clays, B., 655.
- Meulen, *P. A. van der*, and Leeuwen, *E. R. van*, lead arsenate and lime spray mixtures, B., 951.
- Meunier, *F.*, passivity of metals, A., 942.
- Meunier, *F.* See also Dony, *O.*
- Meunier, *G.*, decomposition of cellulosic materials, (P.), B., 295.
- Meunier, *J.* See Desgrez, *A.*
- Meunier, *L.*, Chambard, *P.*, and Comte, *H.*, pancreatic digestion of wool, B., 551.
- Meunier, *L.*, and Rey, *G.*, determination of isoelectric points of wool and silk fibroin, B., 276.
- Meurice, *A.*, spontaneous ignition of sodium sulphide, A., 841.
- Mewes, *R. K. E.*, liquefaction and fractionation of gas mixtures, more especially air, (P.), B., 241.
- Mexco, Ltd. See Scott, *A. C.*
- Meyden, *H. van der*. See Rossem, *A. van*.
- Meyer, *A.*, sulphonation of anthraquinone in presence of mercury, A., 463.
- Meyer, *A.* See also Hein, *F.*
- Meyer, *Arthur*, determination of potassium and sodium in the presence of each other, A., 1046.
- Meyer, *A. W.*, optical constants of molybdenite in the ultra-violet, A., 11.
- Meyer, *C.* See Hudig, *J.*
- Meyer, *C. E.*, treatment of zinc-gold slimes, (P.), B., 682.
- Meyer, *C. F.*, and Levin, *A. A.*, infra-red absorption spectra of acetylene, ethylene, and ethane, A., 918.
- Meyer, *C. H.* See Borsche, *W.*
- Meyer, *D.*, action of ammonium sulphate and of sodium nitrate on acid sandy soils, B., 566.
- Meyer, *E.*, limits of the periodic system of the elements, A., 710.
- Meyer, *E. A.* See Distillers Co., Ltd.
- Meyer, *E. G. E.*, fuel for internal combustion engines, (P.), B., 134, 516, 721.
- Meyer, *E. M.*, preparation of water-soluble albumin, (P.), B., 922.
- Meyer, *F.*, effect of prolonged overheating on the structure and properties of cast iron, B., 254.
- Meyer, *G.*, and Scheffer, *F. E. C.*, nickel carbide, A., 220.
formation of carbides in the system metal-carbon-hydrogen and metal-carbon-oxygen, B., 546.
- Meyer, *Georg*. See Schwarz, *R.*
- Meyer, *G. M.* See Levene, *P. A.*
- Meyer, *Heinrich*. See I. G. Farbenind. A.-G.
- Meyer, *Helmuth*. See Hahn, *F. L.*
- Meyer, *Hugo*, caseinogen, A., 70.
- Meyer, *H. H.* See Tammann, *G.*
- Meyer, *J.*, colour of selenium dioxide, A., 532.
- Meyer, *J.*, and Langner, *M.*, colour of selenium dioxide, A., 220.
- Meyer, *J.*, and Markowicz, *E.*, tervalent vanadium. II., A., 32.
- Meyer, *J.*, and Pawletta, *A.*, electrical conductivity of mixtures of sulphuric and phosphoric acids, A., 315.
pervanadic acid, A., 326.
vanadic acid, A., 531.
preparation of selenium trioxide, A., 532.
- Meyer, *J.*, and Fekall, *K.*, action of cement and gypsum on light metals, B., 846.

- Meyer, J., and Schramm, W., tervalent manganese. VI., A., 33.
 Meyer, J. See also Lessheim, H.
 Meyer, K. See Heller, K.
 Meyer, Karl, lactic acid-forming enzyme of muscle, A., 590.
 Meyer, K. H. See I. G. Farbenind. A.-G.
 Meyer, L., Meyer, M., and Huttenwerke Tempelhof A. Meyer, manufacture of copper sulphate, (P.), B., 481.
 recovering antimony from alloys, (P.), B., 528.
 Meyer, M. See Meyer, L.
 Meyer, Martin, Nerst equation. II. Ionisation of sodium acetate, A., 1140.
 Meyer, R. See Riess, G.
 Meyer, Robert, production of leather compounds, (P.), B., 120.
 Meyer, Robert. See also Hinsberg, O.
 Meyer, Rudolf, dependence of the amount of growth of fungi on the quantity of food factors, A., 280.
 conception of the nutrient requirement of a soil and its determination, B., 566.
 Meyer, R. J. See Bodenstein, M.
 Meyer, T., solidification point of edible fats, B., 226.
 Meyer, W. See Friederich, E.
 Meyer, Waller, explosion phenomena in the coating of mirrors—a warning, B., 913.
 Meyer, W. A. See Beil, A.
 Meyerheim, G., and Frank, F., analysis of small quantities of lubricating oils; [the Vogel-Ossag viscosimeter], B., 34.
 Meyerhof, O., enzymic formation of lactic acid in muscle extract. I. and II. Hydrolysis of polysaccharides and hexosediphosphoric acid, A., 75.
 enzymic formation of lactic acid in muscle extract. III. Lactic acid formation from fermentable hexoses, A., 590.
 Meyerhof, O., and Lohmann, K., enzymic formation of lactic acid in muscle extract. IV. Hexosemonophosphates, A., 697.
 Meyerhof, O., and Meyer, K., purification of lactic acid-forming enzyme of muscle, A., 1112.
 Meyerhof, O., and Suranyi, J., dissociation constants of hexosediphosphoric acid and glycerophosphoric acid, A., 75.
 Meyerhofer, A. F., production of metal compounds, (P.), B., 299, 601.
 decomposition of salts of complex hydrofluoric acids, (P.), B., 748.
 production of complex hydrofluoric acids, (P.), B., 841.
 Meyers, C. H., and Van Dusen, M. S., vapour pressure of liquid carbon dioxide, A., 615.
 Meyer-Sansbeuf, G.m.b.H., A., improving vegetable textiles, (P.), B., 746.
 Meyersohn, P. See Pringsheim, H.
 Meyrueis, J., production of ammonium sulphate, (P.), B., 601.
 Meythaler, F. See Grate, E.
 Mezger, R., cyanogen in gas and the economics of the wet cyanogen purification process with regard to the present-day higher demands of purity of gas for household and industrial use, B., 243.
 Mezger, R., and Leehler, P., treating paints [to improve flexibility], (P.), B., 51.
 Mezger, R., and Pistor, F., reactivity of coke as a function of the oil-bitumen content of the original coal, B., 160.
 Mezger, R. See also Leehler Co., P.
 Mezzadrolì, G., and Nardella, A., glucose and its industrial preparation by acid and by enzymic saccharification of starch, B., 760.
 Michael, J., & Co., preparation of an alkaline, iron-treated carbon suitable for cyanide synthesis, (P.), B., 409.
 Michael, W. See I. G. Farbenind. A.-G.
 Michaelis, L., P.D. in the apple, A., 704.
 Michaelis, L., Ellsworth, R. McL., and Weech, A. A., permeability of membranes. II. Determination of ionic transfer numbers in membranes from concentration chains, A., 727.
 Michaelis, L., and Perlzweig, W. A., permeability of membranes. I. Diffusion of ions across the dried collodion membrane, A., 514.
 Michaelis, L., Weech, A. A., and Yamatori, A., permeability of membranes. III. Electric transfer experiments with dried collodion membranes, A., 727.
 Michalis, G. See Bergmann, M.
 Michalski, E. See Hlasko, M.
 Michaud, F., binary mixtures of volatile liquids in which the molecules of one component are partly associated, A., 730.
 binary mixtures of volatile liquids, A., 819.
 Michaux, A. See Randoim, L.
 Mischeel, F., and Hess, K., oxygen bridges in sugars. II. Position of the oxygen bridge in dextrose, A., 43.
 oxygen bridges in sugars. III. Anhydrides of $\beta\gamma\delta$ -trimethylglucose; attempted synthesis of trimethylcellulose, A., 1056.
 Mischeel, F. See also Hess, K.
 Michel, A., influence of the blast-furnace conditions on the total carbon content of pig iron, B., 679.
 Michel, A., and Matte, M., variations in the mechanical properties of steels and alloys with temperature, B., 703.
 Michel, G., work of evaporation of thermions, A., 919.
 treatment of magnesium or its alloys for casting and other operations, (P.), B., 80.
 protection of molten baths of easily oxidisable metals, (P.), B., 528.
 manufacture of pistons from magnesium and its alloys, (P.), B., 606.
 protection of magnesium and its alloys, (P.), B., 785.
 metallurgy of readily oxidisable metals, e.g., magnesium, (P.), B., 847.
 Micheli, L. I. A., adsorption from the vapour phase at a liquid-vapour interface, A., 509.
 Michelin & Cie, composition capable of being moulded, (P.), B., 367.
 Michels, A., and Geels, P., influence of pressure on electrical conductivity of platinum, A., 99.
 Michels, A., Geels, P., and Veraart, C., influence of pressure on the electrical conductivity of gold, A., 504.
 Michels, A., and Haaf, E. C. F. ten, three-phase lines of the systems: water-o-cresol, water-m-cresol, and water-p-cresol, A., 628.
 Michels, M., decoration of fabrics by the action of light, (P.), B., 861.
 Michelsen, S., conversion of slags into cement, (P.), B., 558.
 Michie, A. C. See Davidson, W. B.
 Michlin, D., preparation and properties of plant porphyridases, A., 699.
 Michlin, D. See also Bach, A.
 Mickelson, H. G. See Hoover, C. R.
 Middleton, N. I., effect of ionised air on rate of respiration of barley seedlings, A., 703.
 Midgley, T., jun., and General Motors Corporation, manufacture of organic lead compounds, (P.), B., 349*.
 Midgley, T., jun. See also Kettering, C. F.
 Midland Manufacturing Co., production of a strong, smooth, and pliable zinc coating on iron wire by a continuous process, (P.), B., 490.
 Mie, G., line-spectrum for wave-lengths of a few decimetres, A., 89.
 Mie, G. See also Staudinger, H.
 Miedel, H. See Bartels, A.
 Miedel, H., structure of gutta-percha and balata, B., 789.
 Miedel, H. See also Pummerer, R.
 Mieg, W. See I. G. Farbenind. A.-G.
 Miekeley, A. See Bergmann, M.
 Miermeister, A. See Griebel, C.
 Miethe, A., and Stammreich, H., formation of gold from mercury, A., 218.
 Migliacci, D., and Calò, A., pharmaceutical incompatibility of camphor, B., 505.
 Migliacci, D., and Crapetta, C., qualitative chemical analysis by the dry method, A., 329.
 Migliacci, D., and Gargiulo, R., pharmaceutical incompatibility of phenol, B., 923.
 Mihnl, C., structure of second order spectrum [O II] of oxygen, A., 1.
 structure of spectra of the third order, A., 3.
 structure of the third order spectrum of oxygen (O III), A., 177, 339.
 electronic configurations corresponding with the third order emission spectrum of oxygen, A., 490.
 structure of the second order spectrum of carbon, A., 705.
 Mihul, C. See also Croze, F.
 Mihul, (Mlle.) I. See Gutton, C.
 Mijer, P. See Two-Tone Corporation.
 Mikeska, L. A. See Levene, P. A.
 Mikhailov, A. K. See Sadikov, W. S.
 Mikó, J. von, colour reactions of apomorphine and its detection in presence of morphine, A., 473.
 identification of iodides and bromides alone and in presence of each other, A., 744.

- Mikó, J. von, and Pala, T., blood changes in strychnine convulsions, A., 276.
- Mikolášek, J., determination of dry substance in after-product syrups and molasses, B., 920.
- Mikumoto, J., soap solutions. III. Effect of acids, bases, and salts on the surface tension of aqueous sodium oleate solutions, A., 306.
- Millani, C., determination of the purity of olive oils, B., 915.
- Milas, N. A., catalytic oxidations in aqueous solution. I. Oxidation of furfuraldehyde, A., 973.
- Millbourne, R. J., and Poulson, C., tool for repairing gas retorts, furnaces, etc., (P.), B., 135*.
- Mildner, F. See Metallbank & Metallurgische Ges. A.-G.
- Miles, G. W. See Dreyfus, C.
- Milhorat, A. T. See Deuel, H. J., jun.
- Milk Products Sub-Committee to the Standing Committee on Uniformity of Analytical Methods, milk products; report No. 1., B., 613.
- Milkanic, Ltd. See Bendixen, N.
- Millar, C. E., removal of nutrients from subsoil by lucerne, B., 421.
- Millar, C. J., water paint or distemper, (P.), B., 563.
- Millard, R. B., Atkinson, E. J., Coulter, C. D., and South Western Engineering Corporation, process and apparatus for distilling hydrocarbons and other liquids and fractionally condensing the vapours, (P.), B., 577.
- Miller, A., manufacture of an electrolyte, (P.), B., 81.
- Miller, A. See also I. G. Farbenind. A.-G.
- Miller, A. E., and Sinclair Refining Co., handling of crude oil and residuals, (P.), B., 931.
- Miller, C., rotary dryer, (P.), B., 767.
- Miller, C. E. See Rogers, T. H.
- Miller, E. B. See Silica Gel Corporation.
- Miller, E. G., jun. See Freeman, R. G., jun.
- Miller, E. J., adsorption from solution by ash-free adsorbent charcoal. III. Comparison of results obtained with ash-free and impure charcoal, A., 929.
- adsorption by activated sugar charcoal, with particular reference to soil acidity, B., 263.
- Miller, E. J., and Bandemer, S. L., adsorption from solution by ash-free adsorbent charcoal. IV. Non-inversion of sucrose by adsorbed acids and its significance for theories of adsorption and catalysis, A., 821.
- Miller, E. J. See also Chandler, W. L., and Haworth, W. N.
- Miller, E. R., volatile oil of *Hypericum perforatum*, B., 858.
- monardella oil, B., 859.
- Miller, E. V. See Appleman, C. O.
- Miller, F. W., manufacture of bi-metallic strips for thermostats, (P.), B., 169, 338.
- Miller, F. W. See also Hill, A. E.
- Miller, G. J., process of reclaiming rubber, (P.), B., 824.
- Miller, H., and Hanovia Chemical & Manufacturing Co., sealing molybdenum or similar refractory metals and fused quartz, (P.), B., 80.
- Miller, H., and Hazeltine Corporation, preparation of an electron-emitting cathode, (P.), B., 882.
- Müller, H. G., sodium deficiency in a maize ration, A., 72.
- Miller, H. H., and Miller Industries Co., H. H., liquid-treating apparatus [for milk], (P.), B., 57.
- Miller, H. J., penetration of brass by tin and solder; copper-tin equilibrium diagram, B., 279.
- Miller, J., determination of sulphur dioxide in dried fruit, B., 615.
- effect of common salt on lime water used for egg preserving, B., 762.
- Miller, L. B., effect of anions on the physical, chemical, and colloidal properties of aluminium hydroxides, A., 110.
- Miller, L. B., and General Electric Co., manufacture of vitreous silica, (P.), B., 523.
- Miller, L. B. See also British Thomson-Houston Co., Ltd.
- Miller, R. C. See Maynard, L. A.
- Miller, R. W. See Garner, J. B.
- Miller, S., and Smith, F. B., chlorides of gastric contents in relation to free acidity, A., 1216.
- Miller, S. P. See Barrett Co.
- Miller, T. H. See Aktiebolaget Separator.
- Miller, T. W., and Faultless Rubber Co., vulcanising rubber, (P.), B., 306.
- Miller, V. F., and Terrey, H., platini-platino-chloride electrode; new type of chlorine electrode, A., 421.
- Miller, W. E., and Silmo Chemical Co., production of fish-oil powder, (P.), B., 377.
- Miller Industries Co., H. H. See Miller, H. H.
- Millet, H., activity of hydrogen ion in mixed solvents, A., 1028.
- Milliff, F. A., and Milliff, J. A., process and apparatus for refining petroleum, (P.), B., 291.
- Milliff, J. A. See Milliff, F. A.
- Milligan, L. H., Quick, C. H., and Norton Co., manufacture of an abrasive article, (P.), B., 779.
- Millikan, R. A., and Bowen, I. S., energy relationships and ionisation potentials of atoms of the first row of the periodic table in all stages of ionisation, A., 912.
- spectral relationships of lines arising from the atoms of the first row of the periodic table, A., 998.
- Millikan, R. A. See also Bowen, I. S.
- Millner, T., [decomposition of iron carbide by acids], A., 844.
- Millner, T. See also Brody, E.
- Millosevich, F., corundum rocks of Val Sessera (Biellesse Foot-alps), A., 336.
- Mills, H., and Robinson, P. L., determination of surface tension by capillary rise; surface tension of water, ethyl alcohol, boron trichloride, and silicon tetrachloride, A., 927.
- Mills, L. E., and Dow Chemical Co., making salol and other esters, (P.), B., 172.
- Mills, M. W., Bolton, J. F., Bolton, J., and Ames, R., varying the circulation of sludge in the purification of sewage, (P.), B., 862.
- Mills, M. W. See also Ames, R.
- Mills, W. H., and Gotts, R. A., optical activity dependent on co-ordinated beryllium, copper, and zinc, A., 149.
- Mills, W. H., Parkin, J. D., and Ward, W. J. V., configuration of the ammonium ion. II. Geometrically isomeric quaternary ammonium salts derived from 4-phenyl- and 4-hydroxy-piperidine, A., 1199.
- Mills, W. L. See Pratt, L. S.
- Millspaugh, W. H., machine for the manufacture of paper [in continuous sheet], (P.), B., 935.
- Milne, E. A., total energy of binding of a heavy atom, A., 914.
- Milne, G., effect of regulated treatment with hydrochloric acid on the lime requirement of a mineral subsoil, B., 309.
- Milne, J. See Laurie, A. P.
- Milne, S., drying, calendaring, and like machines, (P.), B., 839.
- Milner, E. W. See Quinn, E. J.
- Milobedzki, T., and Kaminska, H., extension of the use of borax in acidimetry, A., 846.
- Milobedzki, T., and Krakowiecki, S., isobutylphosphinic acid bromide, A., 865.
- Milroy, T. H. See Beattie, F.
- Mimosa Akt.-Ges., applying photographic baryta or emulsion coating, (P.), B., 238.
- Minaev, M. G. See Larvex Corporation.
- Minaev, V. I., synthesis of 6-chloro-3-hydroxybenzoic acid, A., 149.
- synthesis of *p*-hydroxybenzophenone, A., 361.
- transformation of phenyl acetate into *p*-hydroxyacetophenone, A., 770.
- Miner, C. G., production of phosphorus nitride and volatile halides from raw materials, (P.), B., 778.
- Miner, C. S., and Quaker Oats Co., synthetic perfume, (P.), B., 317.
- Miner, C. S., Steerup, G., and Quaker Oats Co., production of feed-stuff, (P.), B., 732.
- Mineral Akt.-Ges. Brig, production of bitumen or oil emulsions, (P.), B., 595.
- preparation of bituminous emulsions, (P.), B., 836.
- Minerals Separation, Ltd. See Williams, P. T.
- Minerals Separation North American Corporation. See Broad-bridge, W., Keller, C. H., Lewis, C. P., and Simpson, T. R.
- Mingoa, Q., syntheses by means of inorganic magnesyl derivatives, A., 134.
- α -selenobenzoic acid, A., 147.
- reactions of aldehydes with magnesium [magnesyl] indole, A., 158.
- Mingoa, Q. See also Oddo, B.
- Minimax A.-G. See Excelsior Feuerlöschgeräte A.-G.
- Minimax G.m.b.H., generation of pressure in fire-extinguishers, (P.), B., 176.
- Minkovska, S., phosphorus compounds of plants. II. Solubility of phosphorus compounds of barley flour, A., 1227.
- Minnaert, M. See Heringa, G. C., and Ornstein, L. S.
- Minnich, W. See Society of Chemical Industry in Basle.

- Minor, C. G., and Anglo-California Trust Co., production of metallic magnesium and fixed nitrogen, (P.), B., 605.
- Minot, M. A., recovery of iron oxide from blast-furnace flue dust, (P.), B., 818.
- Minter, M. M., drying apparatus, (P.), B., 241*.
- kilns, (P.), B., 575, 799.
- Minty, W. See Stothert & Pitt, Ltd.
- Mintz, I. B., Lyubin, B. O., and Zilberman, V. I., analysis of babbitt metal, B., 704.
- Mintz, I. B., and Zilberman, V. I., determination of carbonate in syrups, etc., B., 952.
- Minunni, G., oxidation products of aromatic aldehydehydrazones and their molecular transpositions, A., 1073.
- Minunni, G., and D'Urso, S., oxidation of hydrazine compounds. I. Behaviour of the *p*-tolylhydrazones of certain aromatic aldehydes with amyl nitrite, A., 1073.
- Miolati, A., and Leprestre, R., accumulators containing lead dioxide, zinc, and sulphuric acid, (P.), B., 786.
- Mion, P. See Gay, L.
- Mircescu, (Miss) J., [Rumanian] apricot kernel oil, B., 618.
- Mirchandani, T. J., and Simonsen, J. L., isoerucic acid, A., 339.
- Miriam, S. R., Wolf, J. T., and Sherwin, C. P., comparative metabolism of aromatic acids. XI. Fate of diphenylacetic acid in the animal body, A., 275.
- comparative metabolism of aromatic acids. XII. Fate of triphenylacetic acid, triphenylmethane, and triphenylcarbinol in the animal body, A., 375.
- Miscampbell, H., lime hydrator, (P.), B., 108*.
- Misch, O., water-gas generator for bituminous fuel, (P.), B., 770.
- generation of carburetted water-gas from bituminous fuel, (P.), B., 867.
- Mischnat, J. See Hertel, E.
- Mischon, W. See I. G. Farbenind. A.-G.
- Mishima, T. See Nagaoka, H.
- Mislowitzer, E. See Rona, P.
- Mitchell, A. C. G., and Dickinson, R. G., effect of added gases on the decomposition of ammonia sensitised by optically excited mercury vapour, A., 738.
- Mitchell, A. C. G. See also Dickinson, R. G.
- Mitchell, A. G. See Donnelly, J. L.
- Mitchell, B. A., [gyratory] crusher, (P.), B., 31.
- Mitchell, E., extrusion of metals [e.g., magnesium propellers], (P.), B., 370.
- Mitchell, G. O., dyeing of vat colours, B., 41.
- Mitchell, H. G., and United States Industrial Alcohol Co., manufacture of alkyl carbonates, (P.), B., 59, 973.
- Mitchell, H. H., and Beadles, J. R., nutritional protein value of beef liver, heart, and kidney, A., 275.
- Mitchell, H. H., Beadles, J. R., and Keith, M. H., value of cocoa and chocolate as sources of protein in the diet, A., 170.
- Mitchell, H. H., Beadles, J. R., and Kruger, J. H., relation of connective tissue content of meat to its nutritional value, A., 792.
- Mitchell, H. H., Zimmerman, R. L., and Hamilton, T. S., determination of amount of connective tissue in meat, B., 264.
- Mitchell, H. S., physiological value of five carbohydrates based on growth and faecal analysis, A., 374.
- Mitchell, H. S., and Vaughn, M., relation of inorganic iron to nutritional anaemia, A., 1216.
- Mitchell, I., dyeing machines [for loose stock, rags, etc.], (P.), B., 700.
- machines for washing, milling, scouring, or otherwise treating fabrics with liquids, (P.), B., 872.
- Mitchell, L. C., iodine value of paprika oil, B., 49.
- Mitchell, R. K. S. See Rule, H. G.
- Mitchell, T. A., and Hughes, L. M., treatment of alunite, (P.), B., 629.
- Mitchell, W. L., and Tiffany & Co., silver alloy, (P.), B., 224.
- Mitchell, W. M., stainless iron and its application to chemical plant construction, B., 879.
- Mitchener, W. B. See Arthur, E. P.
- Mitra, A. K. See Neogi, P.
- Mitra, M. N. See Ghosh, J. C.
- Mitra, S. K. See Mukherjee, J. N.
- Mitsuba, K., physiology of the spleen, A., 696.
- Mitsuba, K., and Ichihara, K., fate of anthranilic acid in the animal body, A., 694.
- Mitsuhashi, T., evaluation of water-gas oil, B., 737.
- Mitsukuri, S., and Tonomura, T., viscosities of methyl alcohol, acetone, and ethyl ether at low temperatures, A., 719.
- Mitsukuri, S. See also Sinozaki, H.
- Mittar, P. C., and Sinha, N. N., synthesis in the glyoxaline series; some derivatives of isoglyoxaline, A., 577.
- Mittasch, A., Kuss, E., and Schlüter, H., densities and vapour pressures of aqueous solutions of ammonia and of liquid nitrogen tetroxide for the temperature interval 0–60°, A., 104.
- Mittasch, A., and Müller-Cunradi, M., iron carbonyl preparation, (P.), B., 403.
- Mittasch, A. See also I. G. Farbenind. A.-G.
- Mitteldutsche Hartstein-Ind. A.-G., vulcanisation of tar for road-making purposes, (P.), B., 808.
- Mittendorf, T. H., cultured-milk drink, (P.), B., 155.
- Mitter, P. C., and Bhattacharya, A., Bz-tetrahydroquinazolines, A., 977.
- Miyagawa, I., constitution of carminic acid, A., 134.
- Miyake, S. See Cohen, E.
- Miyamoto, S., effect of alkali on the oxidation of ferrous hydroxide by air, A., 425.
- effect of alkali on oxidation of sodium sulphite with air, A., 525.
- effect of alkali hydroxide on the oxidation of stannous chloride with air, A., 835.
- oxidation of a mixture of stannous chloride and sodium sulphite in alkaline solution with air, A., 943.
- Miyaniishi, M., excitation of enhanced lines of tin in arcs; Zeeman effect of enhanced lines of tin, A., 2.
- reversing action of red and infra-red rays on sensitised and fogged photographic plates and the absorption of the sensitising dyes, A., 6.
- spectra of metallic arcs started in chlorine, A., 910.
- lengths of enhanced lines of metals excited in various media and lines of constant wave-number differences among enhanced lines of bismuth and lead, A., 910.
- arc spectra of metals in chlorine, A., 998.
- Miyazaki, S. See Ono, K.
- Mizushima, S., anomalous dispersion and absorption of electric waves, A., 610*.
- Modern, F. See Wernicke, R.
- Möder, A., distributing apparatus, (P.), B., 512.
- Moehl, H. See Wartenberg, H. von.
- Moehlig, R. C., and Ainslee, H. B., posterior pituitary extract and cholesterol metabolism, A., 702.
- Moeller, J. F. L., coking and distillation of carbonaceous materials, (P.), B., 99.
- Möller, K. O., fluid and chloride exchange between blood and cells after administration of theophylline, A., 1219.
- action of theophylline on the excretion of chlorides and water, A., 1219.
- sulphate diuresis and combined sulphate-theophylline diuresis, A., 1219.
- Moens, R., phenomenon of ionisation of mercury vapour at low pressures, A., 181.
- Moens, R., and Juliard, A., chemical reactions in the gaseous phase in electromagnetic fields of high frequency, A., 1042.
- Moers, K. See Koref, F.
- Mössner, V. See Brunner, K.
- Moffett, E. C., and American Cyanamid Co., fumigating process [for grain], (P.), B., 121.
- Mohammad, W., and Mathur, S. B. L., fine structure of the spectrum lines of cadmium in the ultra-violet, A., 803.
- Mohler, F. L., excitation of spectra by atomic hydrogen, A., 389.
- Mohler, F. L., and Foote, P. D., electron collisions in carbon monoxide, A., 180.
- Mohler, F. L., and Moore, H. R., absorption spectra of mercury, cadmium, and zinc at high pressure, A., 917.
- Mohr, R., apparatus for bleaching textiles by means of oxygen or ozone baths, (P.), B., 812.
- Moir, D. D. See Le Fèvre, R. J. W.
- Moir, J., colour and molecular geometry. V. Search for a crucial test of colour theories, A., 918.
- colour and chemical constitution. XXI. Methyl derivatives of the phenolphthaleins, A., 1037.
- colour and chemical constitution. XXII. Dicyclic azomethines and their congeners, A., 1074.
- Moiseev, H. M. See Muchin, G. E.
- Moissejeva, C. See Muchin, G. E.
- Moisin, N., accumulation and movement of nitrates in a four-field rotation, B., 709.
- Mokruschin, S., diameter of molecules at the b. p., A., 296.
- contraction of molecules in the liquid state, A., 1128.
- Mokruschin, S., and Essin, D., adsorption, A., 305.

- Mokruschin, S., and Essin, D., adsorption of basic colouring matters by filter-paper, A., 305, 617*.
electrical adsorption theory, A., 721.
- Molassine Co., and Davis, H. C., method and apparatus for the manufacture of food for dogs and other animals, (P.), B., 236.
- Moldenke, R., treatment of aluminous ores, (P.), B., 778.
- Moles, E., argon content of the atmosphere, A., 129.
weight of the litre and atomic weight of argon, A., 182.
ten years' work on gases, A., 194.
weight of a normal litre and compressibility of ammonia, A., 300.
additivity of volumes in inorganic compounds. IV. Volume of hydrogen in hydrides, A., 812.
limit of accuracy of physico-chemical at. wt. determinations.
I. Normal molar volume and at. wt. of nitrogen, A., 1120.
- Moles, E., and Clavera, J. M., density and at. wt. of nitrogen, A., 1120.
- Molitor, H., preparation of sulphuric acid from gypsum, B., 520.
manufacture of barium chloride, B., 580.
- Moll, F., importance of corrosive sublimate as a wood-impregnating material, B., 878.
- Molony, S. B., Nikaido, Y., Brown, C. W., Clause, W. L., and Pitcairn, E., [accelerators for] rubber vulcanisation, (P.), B., 789.
- Molybdenum Corporation. See Weitzenkorn, J. W.
- Molybdenum Corporation of America, and Lucas, E. A., compositions for alloying molybdenum with other metals, (P.), B., 582.
- Molybdenum Corporation of America. See also Weitzenkorn, J. W.
- Monath, E. See Garelli, F., and Giua, M.
- Mond, R., effect of acids and hydrogen-ion concentration in physiology, A., 20.
- Mond Nickel Co., and Atkinson, R. H., extraction of precious metals from their ores and concentrates, (P.), B., 302.
- Mondain-Monval, P., heats of mixture of partly miscible couples; system methyl alcohol-cyclohexane, A., 23.
- Monier-Williams, G. W., determination of benzoic acid in foodstuffs, B., 502, 922.
- Moniuszko, K. See Turski, J. S.
- Monk, R. H., and Irwin, J., producing a titanium [oxide] pigment, (P.), B., 85.
production of titanium pigments from materials containing titanium, (P.), B., 340*.
- Monk, R. H. See also Irwin, J.
- Monkhouse, A. C., disposal of liquor effluents from gas works, B., 864.
- Monroe-Louisiana Carbon Co. See Matlock, C.
- Monsarrat-Thomas, P. See Karrer, P.
- Montagne, P. See Jolibois, P.
- Montalti, A. See Mutti, I.
- Montan, Inc., and Coolidge, J. R., impregnation of wood, (P.), B., 909.
- Montan, Inc. See also Coolidge, J. R.
- "Montecatini" Soc. Gen. per l'Ind. Mineraria ed Agricola, and Fauser, G., electrolyser for the production of hydrogen and oxygen, (P.), B., 81.
- Montemartini, C., and Losana, L., do substances in solution retain any of the properties characteristic of them in the solid state? A., 199.
- Montequi, F., synthesis of 8-methyl-7-ethylxanthine from a glyoxaline derivative, A., 469.
synthesis of purines, A., 979.
- Montequi, R., new reactions of zinc, copper, and cadmium, A., 436.
- Montgomerie, J. A., bituminous emulsion, (P.), B., 836*.
- Montgomery, E. T. See Jeffery, J. A.
- Montgomery, H. A., manufacture of lubricants, (P.), B., 577.
- Montgomery, R. C. See Harding, V. J.
- Monti, E., digesting and concentrating protein and preparing non-alcoholic drug extracts, (P.), B., 26.
pomace extract, (P.), B., 27.
- Monti, L. See Bargellini, G.
- Montignie, E., cholesterol. II. and III., A., 556, 969.
- Montillon, G. H., and Badger, W. L., rate of growth of crystals in aqueous solution, B., 687.
- Montonna, R. E., silicon tetrachloride as a reagent for the preparation of acid chlorides, A., 958.
- Montonna, R. E. See also Jewett, E. E., and Shirk, L. H.
- Mooers, C. A., effects of liming and green manuring on crop yields and on soil supplies of nitrogen and humus, B., 950.
- Mook, H. W. See Backer, H. J., and Buytendyk, F. J. J.
- Moor, W. O., reaction of sodium chloride if added to a solution of litmus and mercuric chloride, A., 1165.
- Moore, B., and Sinnatt, F. S., investigation of the behaviour of solid fuels during oxidation. II., B., 130.
retention of certain hydrocarbons by solid fuels, B., 593.
- Moore, B. J., and Campbell, A. J., electrically heated [tunnel] kiln, (P.), B., 492.
- Moore, O. E., some changes taking place in the low-temperature burning of Stourbridge fireclay. II., B., 44.
- Moore, C. N. See Coolidge, W. D., and Long, J. S.
- Moore, E. K. See McLaughlin, G. D.
- Moore, F. C., and Vandervort, P., oil-refining still, (P.), B., 7.
- Moore, F. H. See Hodgson, H. H.
- Moore, F. J., and Huntress, E. H., asymmetrical phenanthridones. I. 2-Nitro- and 7-nitro-phenanthridone, A., 665.
- Moore, F. J., and Huntress, E. H., asymmetrical phenanthridones. II. Preparation of 7-nitrophenanthridone by Beckmann rearrangement of 2-nitrofluorenoneoxime, A., 1201.
- Moore, F. J., and Tucker, G. R., sulphonation of cinnamic acid; proof that the secondary product is *m*-sulphocinnamic acid; synthesis of *o*-sulphocinnamic acid; action of sodium hydrogen sulphite on cinnamic acid derivatives, A., 242.
- Moore, H., and Barrett, J., oxidation of lubricating oil, B., 132.
- Moore, H., and Beckinsale, S., manufacture and properties of hair-springs, B., 254.
- Moore, H. C., and White, R., alkaline and neutral permanganate methods [for nitrogen determination]: comparison of results on raw materials and fertiliser mixtures, B., 535.
detection and determination of nitrogen-bearing chemicals added to animal or vegetable nitrogenous materials, B., 731.
- Moore, H. K., and Brown Co., production of calcium arsenate, (P.), B., 299.
- Moore, H. R. See Mohler, F. L.
- Moore, J. W., Polack, W. G., and Castner-Kellner Alkali Co., Ltd., manufacture of ammonium chloride, (P.), B., 652, 701.
- Moore, M. L. See Chappell, M. L.
- Moore, O. J. See Jackson, H., jun.
- Moore, Q., jun., testing of disinfectants by the Rideal-Walker method, B., 61.
- Moore, T., vitamin-A formation in the etiolated wheat shoot, A., 904.
- Moore, T., and Willimott, S. G., development of chromogenic properties in cholesterol by the action of heat, A., 763.
- Moore, T. See also Willimott, S. G.
- Moore, W. B. See Holmes, A. D.
- Moore, W. C., and Myers, H. A., briquette binder containing residues from alcohol manufacture, B., 513.
- Moorshead, T. C. See United Glass Bottle Manuf., Ltd.
- Morales, R. See Georgia, F. R.
- Moran, R. C., and Du Pont de Nemours & Co., E. I., nitroglucose explosive, (P.), B., 622.
acceleration of gelatinisation of cellulose nitrate, (P.), B., 894.
- Morand, M., emission of positive rays, A., 492.
- Morawe, F. See Wenzl, M.
- Morawe, K., softening of water by base exchange, (P.), B., 894.
- Moreau, E. See Roerich, A. C.
- Moreau, L., and Vinet, E., sulphur dioxide in wine making, B., 665.
- Morehead, J. M., method and apparatus for determining, indicating, and recording the calorific value of liquid and gaseous fuels, (P.), B., 134.
- Morehouse, W. B., effect of chemical combination on X-ray absorption, A., 707.
- Morel, A., and Sisley, P., constitution of the diazo-compounds of silk fibroin, A., 1212.
- Moreton, C. J., waterproofing textile and other materials, (P.), B., 362*.
- Moreton, C. J., and Waterproofers (Moreton's Process), Ltd., waterproofing textile and other materials, (P.), B., 165.
- Moretti, G., motor fuel, (P.), B., 866.
- Morey, G. W., and Bowen, N. L., decomposition of glass by water at high temperatures and pressures, B., 654.
- Morey, G. W. See also Wyckoff, R. W. G.
- Morgan, E. J., distribution of xanthine oxydase. I., A., 76.
- Morgan, G. S., removing detergent salts from pickling liquors, (P.), B., 723.
- Morgan, G. T., and Burstall, F. H., residual affinity and co-ordination. XXIX. Cupric salts stabilised by ethylenediamine, A., 753.
- Morgan, G. T., and Holmes, E., higher fatty acids. II. Some branched chain fatty acids, A., 539.

- Morgan, G. T., and Pratt, D. D., complex aromatic hydrocarbons in low-temperature tar, B., 7.
- Morgan, G. U., heat exchange apparatus, (P.), B., 207.
- Morgan, H. J. See Poindexter, R. W., *jun.*
- Morgan, H. T., and Calbeck, J. H., cause and prevention of staining on white paint, B., 84.
- Morgan, J. D., vibrational movements which occur during the inflammation of combustible gases, A., 630.
- Morgan, J. I. See Morton Sundour Fabrics, Ltd.
- Morgan, J. L. R., and Crist, R. H., photochemical decomposition of potassium persulphate. I, II., and III., A., 216, 323, 428.
- Morgan, J. S., Rider, D., and Thermal Industrial & Chemical (T. I. C.) Research Co., Ltd., distillation of tar, (P.), B., 597*.
- Morgan, J. S., and Thermal Industrial & Chemical (T. I. C.) Research Co., Ltd., method of distillation [of tar, etc.], (P.), B., 321*.
- Morgan, M. F., field method for p_H determination [of soils], B., 951.
- Morgan, S. O. See Smyth, C. P.
- Morgan, W. H., extraction of juice from sugar cane [by milling], (P.), B., 538.
- Morgan, W. H., and Morgan, W. H., *jun.*, extraction of juice from [sugar] cane stalks, (P.), B., 921*.
- Morgan, W. H., *jun.*, preparation of sugar-cane stalks prior to the extraction of juice therefrom, (P.), B., 538.
- Morgan, W. H., *jun.* See Morgan, W. H.
- Morgan, W. L. See Scarlett, A. J.
- Morgan, W. T. J., hexosidediphosphoric acid. I. α - and β -Methyl-hexosidediphosphoric acids, A., 749.
- Morgan, W. T. J. See also Marks, H. P.
- Morgan Construction Co., control and reversal of regenerative furnaces, (P.), B., 464.
- Morgan Crucible Co., Ltd., and Spiers, C. W., pottery and other kilns, (P.), B., 76.
- Morgan Crucible Co., Ltd. See also Spiers, C. W.
- Morgen, R. A., relation between pseudobinary lines and solid solutions in metallic ternary systems, A., 206.
- Morgenstern, F. von, now index for the determination of butter fat, B., 145.
- Morgenstern, F. von. See also Rossée.
- Morgenstern, H., and Hagen, W., apparatus for preparing lime water for use in water-purifying plants, (P.), B., 350.
- Morgulis, S., and Beber, M., effect of temperature on catalase reaction. V. Temperature correction in catalase determinations, A., 483.
- Morgulis, S., and Hamsa, W. R., urinary acidity. Electrometric titration of urino, A., 1105.
- Mori, M. See Fernbach, A.
- Mori, T. See Levene, P. A.
- Moriarty, M. E. See Talbot, F. B.
- Morioka, T. See Yamaguchi, Y.
- Moritz, A. R. See Goldblatt, H.
- Moriyasu, S. See Tabata, K.
- Morizot, P. J. T., purification of sugar juice, (P.), B., 888.
- Mork, H. S., and Lustron Co., Inc., stabilised cellulose ester, (P.), B., 71.
- Moroy, J., vanilla powders, B., 712.
- Morrell, C. A., Borsook, H., and Wasteneys, H., influence of the backward reaction in peptic hydrolysis of albumin, A., 483.
- Morrell, J. C., polymerisation and other chemical reactions in the sulphuric acid refining of cracked distillates, B., 594.
- Morrell, J. C., Comay, S., and Universal Oil Products Co., purifying hydrocarbon oils, (P.), B., 437.
- Morrell, J. C., and Egloff, G., apparatus for fractional distillation [of petroleum] under reduced pressure, B., 930.
- Morrell, J. C., Egloff, G., and Universal Oil Products Co., manufacture of resin-like substances from cracked hydrocarbon products, (P.), B., 635.
- Morrell, J. C., and Faragher, W. F., rôle of lead sulphide in the sweetening of petroleum distillates and chemistry of the mercaptans, B., 803.
- Morrell, J. C., and Universal Oil Products Co., recovering resinous substances from cracked petroleum distillates, (P.), B., 134.
- Morrell, J. C., and Universal Oil Products Co., treatment of petroleum residue, (P.), B., 517.
- Morrell, R. S., action of α -naphthol as negative catalyst in oxidation of drying oils, B., 945.
- Morrell, R. S., and Marks, S., yellowing of drying oil films, B., 787.
- Morrell, R. S., and Smyth, C. I., arsenic in printing inks, B., 971.
- Morris, A. A. See Chattaway, F. D.
- Morris, F. J., and Adkins, L. R., specific gravity of paraffin wax, B., 355.
- Morris, H. M. See Tattersfield, F.
- Morris, H. N. See Allman, P.
- Morris, L. E., mildew in cotton goods. IV. Antiseptics and the growth of mould fungi on sizing and finishing materials, B., 470.
- Morris, L. S., and Crist, J. W., influence of reaction of culture medium on growth of strawberry plants, A., 1225.
- Morris, N., and Graham, S., effect of the administration of sodium β -hydroxybutyrate on the glycosuria of phloridzin diabetes, A., 1216.
- Morris, R. W. See Dyson, G. M.
- Morris, V. N., gasometric determination of nitric oxide, with special reference to absorption by ferrous chloride, A., 435.
- Morris, V. N., absorption of nitrogen oxides in an aqueous suspension of phosphate rock, B., 886.
- Morris, V. N., and Reyerson, L. H., catalytic activity of metallised silica gels. I. Hydrogenation of ethylene, A., 839.
- Morris, V. N., catalytic activity of metallised silica gels, A., 1038.
- Morris, V. N. See also Mellon, M. G.
- Morrison, D. M., helium compound, A., 806.
- Morrison, F. R., fixed oil of the kidney fat of the emu (*Dromaius novae-hollandiae*), A., 168.
- Morrison, F. R. See also Penfold, A. R.
- Morrison, J. E. See Stansfield, A.
- Morrow, R. M. See Stewart, G. W.
- Morsch, K. See Philipp, E.
- Morschel, H. See Meerwein, H.
- Moschel, W. See I. G. Farbenind. A.-G.
- Morse, F. W., discoloration of canned cranberries, B., 713.
- Morse, J. K., atomic lattices and atomic dimensions, A., 611.
- Morse, M. See Schultz, F. W.
- Morse, S. W. See Bodansky, M.
- Mort, T. L. See Know Mill Printing Co., Ltd.
- Mortensen, F., centrifugal separators or clarifiers, (P.), B., 128.
- Mortrud, E., evaporation of liquids, (P.), B., 800.
- Mortimer, S. F., determination of methyl alcohol in presence of ethyl alcohol, A., 687.
- Morton, C., ionisation of polyhydric acids, A., 1026.
- Morton, C., locating the end-point in alkaloidal titrations, B., 617.
- Morton, J. See Morton Sundour Fabrics, Ltd.
- Morton, L., and Hargrove, J., [blocks for] furnaces having suspended arches, (P.), B., 801, 898.
- Morton, R. A., Heilbron, I. M., and Kamm, E. D., absorption spectrum of ergosterol in relation to the photosynthetic formation of vitamin-D, A., 948.
- Morton, R. A., and Riding, R. W., absorption spectra of nitrates in the region 300 μ , A., 90.
- Morton, R. A., refractivity of carbon monoxide, A., 614.
- Morton, R. A., and Tipping, A. H., spectrographic method for the determination of dissociation constants, A., 728.
- Morton, R. A. See also Heilbron, I. M.
- Morton Sundour Fabrics, Ltd., Morton, J., Wylam, B., Harris, J. E. G., and Morgan, J. I., dyes and dyeing [soluble esters of leuco-vat dyes], (P.), B., 901.
- Moschini, A., mechanism of the Golgi black reaction [of animal tissues], A., 1103.
- Moseicki, I., and Broder, J., spheroidal state of liquids on heated metallic surfaces, A., 200.
- Moseley, J. F., detergent compound, (P.), B., 451*.
- Mosens, L., modification of Mohr's pinch-cock for burettes, A., 439.
- Moser, E. See Maurer, H.
- Moser, F. R. See Bataafsche Petroleum Maatschappij.
- Moser, H., refinement of the Eötvös reflexion method for the measurement of surface tensions, A., 507.
- Moser, H., absolute value of surface tension of pure water according to the wire-hoop method and its dependence on temperature, A., 507.
- Moser, H., buffer action. III. Aluminium hydroxide. IV. Buffering by heated alkaloid solutions. V. Sodium fluoride, A., 516.
- Moser, H., importance of buffering capacity in biochemistry, A., 937.
- Moser, L., and Brukl, A., determination and separation of rare metals. VIII. Determination of thallium as thallic chromate, A., 436.
- Moser, L., and Maxymowicz, W., application of mixtures of ammonium halide and sulphate in quantitative analysis, A., 435.
- Moser, L., and Niesser, M., determination and separation of rare metals from other metals. IX. Quantitative separation of beryllium and aluminium, A., 846.

- Moser, L., and Ritschel, E., analysis of rubidium and cesium, A., 222.
- Moser, L., and Schmidt, Karl, determination and separation of rare metals from other metals. VII. Determination of tungsten and its compounds by distillation in a current of air and carbon tetrachloride vapour, A., 37.
- determination of tungsten in ferro-tungsten and tungsten steels, B., 636.
- Moser, L., and Schöninger, W., standardisation of permanganate with electrolytic iron, A., 332.
- Moses, F. G. See Barrett Co.
- Moses, W. See Sabalitschka, T.
- Mosettig, E. See Späth, E.
- Moss, J. E., and Knapp, A. W., chemical method for the standardisation of ultra-violet light, A., 322, 634.
- Moss, J. E. See also Knapp, A. W.
- Mostny, J., making artificial sponges, (P.), B., 165.
- Mote, J. H. See Scott, A. W.
- Motor Fuel Corporation, Richey, C. F., and Duffee, P. Y., method and apparatus for cracking and distilling oils, (P.), B., 100*.
- Mott, C., and Compressed Gas Corporation, synthetic production of ammonia, (P.), B., 140.
- Mott, C., Dahlberg, H. W., and Parox Co., absorbent for liquid oxygen explosives, (P.), B., 204.
- Mott, R. A., coke formation, B., 353.
- development of design of by-product coke oven, B., 643.
- Mott, R. A., and Wheeler, R. Y., inherent ash of coal, B., 802.
- Mott-Smith, L. M., and Daily, C. R., lack of effect of a magnetic field on the dielectric constant of hydrogen chloride and nitric oxide, A., 92.
- Motzoc, D. See Zaharia, A.
- Mougey, H. C., and General Motors Research Corporation, uniting dissimilar metals, (P.), B., 918.
- Mount, W. D., wood pulp, (P.), B., 185, 438*.
- continuous apparatus for the manufacture of caustic soda, etc. by causticising, (P.), B., 187.
- apparatus for continuous filtering, (P.), B., 242*.
- causticising units or apparatus, (P.), B., 409*.
- kilns [for burning limestone], (P.), B., 443.
- Mount Lyell Mining & Railway Co., Ltd., and Trend, E. W., production of copper oxychloride, (P.), B., 677.
- Mougin, H., and Rideal, E. K., rigidity of solid unimolecular films, A., 507.
- Mouren, C., and Dufraisse, C., condensation product of acrolein and process of producing the same, (P.), B., 35*.
- Mouren, C., Dufraisse, C., and Badoche, M., autoxidation and anti-oxygens. XX. Catalytic action of another series of nitrogen compounds; general observations on nitrogen compounds, A., 28.
- Mouren, C., Dufraisse, C., and Chanx, R., autoxidation and anti-oxygens. XXI. Application to the mode of action of anti-detonants, B., 243.
- autoxidation and anti-oxygens. XXII. Mode of action of anti-detonators, B., 512.
- autoxidation of treated combustible liquids and its modification by other reagents, applied to "knock" in motors, B., 692.
- Mouren, C., Dufraisse, C., and Houghton, A. S., diphenylphenylacetylnylcarbinol [triphenylpropargyl alcohol]. III. Esters. IV. Attempts to obtain the free radical, triphenylpropargyl, CPh:C(CPh)₂, A., 355.
- Mouren, C., Dufraisse, C., and Johnson, J. R., action of bromine on furylacrylic acid, A., 464.
- furylacetylene, A., 465.
- Mouren, H. See Dufraisse, C.
- Mourgeon, L., distributing cock for use in subjecting solid material to the action of fluids, (P.), B., 863.
- Mouriquand, G., and Leulier, A., non-existence of uncombined adrenaline in fresh suprarenal capsules, A., 168.
- Mouriquand, G., Leulier, A., and Sédallian, P., alkali reserve and p_H in avitaminosis-C, A., 1224.
- Mouromtsev, B. See Ipatiev, F. N.
- Mousseron, M. See Astruc, A., and Canals, E.
- Moyer, P. S., and Aridor Co., dehydrating unit, (P.), B., 177*.
- Mozolowski, W., and Taubenhaus, M., ammonia content and formation in blood. VIII. Is the ammonia content of the blood connected with the presence of cyanates? A., 369.
- Mozolowski, W. See also Elisiecki, A., and Parnas, J. K.
- Muchin, G. E., Fajermana, G., Dogopolsky, L., and Levin, L., speed of diffusion and the solvent, A., 507*.
- Muchin, G. E., Ginsburg, R., and Moissejeva, C., chemical kinetics in mixtures of solvents. III., A., 524.
- Muchin, G. E., Karlson, L. E., and Stein, L. M., chemical kinetics in mixed solvents; velocity of formation of quaternary ammonium salts in mixtures of nitrobenzene and heptane, A., 1149.
- Muchin, G. E., and Moiseev, H. M., chemical kinetics in mixed solvents; velocity of formation of quaternary ammonium salts in mixtures of nitrobenzene and benzene, A., 1149.
- Muchin, G. E. See also Gapon, E. N., and Ginsburg, R. E.
- Muchka, J., heat-exchange apparatus, (P.), B., 897.
- Muckenfuss, A. M., and Roessler & Hasslacher Chemical Co., production of aqueous solutions of free cyanamide, (P.), B., 733.
- Mudd, E. B. H. See Mudd, S.
- Mudd, S., and Mudd, E. B. H., structure of the cell membrane on the basis of a new method of surface tension determination, A., 892.
- Muddiman, E. W. See Davidson, W. B.
- Mudgan, M. See Meingast, R.
- Mudge, C. S., possible rôle of iron-depositing bacteria in the formation of hard-pan, B., 728.
- Mudge, W. A., and International Nickel Co., addition of aluminium to aluminium-containing alloys, (P.), B., 116*.
- Mudge, W. A. See also International Nickel Co.
- Mühlbachl, F., compost manures, (P.), B., 310.
- Mühlendahl, E. von, and Schulz, H., nitrocellulose for use in lacquers, B., 635.
- testing of nitrocellulose lacquers, B., 915.
- Mühlendahl, E. von. See also Frowein, F.
- Mühling, F., photographic process, (P.), B., 238.
- Müller, A., capability of the germination of barley as a measure of the toxicity of halogenated hydrocarbons, B., 616.
- Müller, Adolf, use of auxiliary washing electrodes in the preparation of pure hydrogen by electrolysis, A., 118.
- Müller, Adolf, and Sauerwald, A., action of *p*-toluenesulphonamide on *α*,*δ*-dibromobutane: new pyrrolidine synthesis, A., 884.
- Müller, Alex., X-ray investigation of certain long-chain compounds, A., 503.
- Müller, Alexander. See Hess, K.
- Müller, Anton, miscibility-gap in molten iron-copper alloys, A., 627.
- Müller, Arno, distillation flasks, A., 438.
- pipette, A., 438.
- laboratory stirring apparatus, A., 438.
- Müller, C. See I. G. Farbenind. A.-G.
- Müller, C. E. See L. G. Farbenind. A.-G.
- Müller, C. J. See Thiess, K.
- Müller, E. See I. G. Farbenind. A.-G.
- Müller, Erich, electrolytic deposition of chromium from aqueous chromic acid solutions, A., 322.
- [electronic interpretation of the constitution of the boron hydrides and of compounds of boron], A., 714.
- electrolytic reduction of acetone and the theory of electrolytic reduction, A., 840.
- Müller, Erich [with Brun, P., and Unger, G.], potentiometric determination of molybdenum, A., 746.
- Müller, Erich, and Hentschel, H., rapid separation of lead and silver by a potentiometric method, A., 1046.
- Müller, Erich, Müller, Johannes, and Fauvel, A., system zinc hydroxide, zinc oxide, sodium zincate, and sodium hydroxide, A., 518.
- Müller, Ernst [with Schiller, G.], thioacetaldehyde, A., 672.
- Müller, E. A. See Visscher, M. B.
- Müller, F. See Köster, W., and Roth, W. A.
- Müller, F. See Wagner, H.
- Müller, Franz, Günther, P., and Peiser, M., physico-chemical basis of the action of the phenol-camphor medicaments, A., 800.
- Müller, Friedrich, electrolytic oxidation of concentrated formic acid solutions, A., 738.
- Müller, Fritz. See Siemens-Schuckertwerke, G.m.b.H., and Zeche M. Stinnes.
- Müller, F. G., and Banninger, A., electropyrolytic decompositions. II. Benzene; turpentine, A., 1177.
- Müller, G., and American Lurgi Corporation, recovering adsorbed material from adsorbent material, (P.), B., 230.
- Müller, Gustav, and Fischer, Joh., briquetting coal, (P.), B., 466.
- Müller, H. See Allis, W. P.
- Müller, Hans, activity coefficients of small ions, A., 626.

- Müller, *Helmut*, oxidation quotients, A., 996.
Müller, *Helmut*, and *Reinwein, H.*, pharmacology of galegine, A., 1109.
Müller, *Helmut*. See also *Biltz, W.*
Müller, *Hermann*, and *Geigy Akt.-Ges., J. R.*, process for the preparation of printing paste, (P.), B., 186*.
Müller, *H. P.* See *Schmalfuss, H.*
Müller, *J.* See *Berg, P.*
Müller, *Jens.* See *Herz, R.*
Müller, *Johannes.* See *Müller, Erich*, and *Schenck, R.*
Müller, *J. H.*, allotropy of germanic oxide, A., 298.
Müller, *J. H.*, *Pike, E. F.*, and *Graham, A. K.*, preparation of metallic germanium and volatility of the metal in hydrogen and in a vacuum, A., 121.
Müller, *J. H.* See also *Wyckoff, R. W. G.*
Müller, *K.*, *Vogt, E.*, and *Raesch, O.*, detection of fruit wine in grape wine, B., 665.
Müller, *Karl*, purification of gases for the synthesis of ammonia, (P.), B., 555.
Müller, *L. A.*, absorption spectra of alkali halides in aqueous solution and in the vapour state, A., 185.
Mueller, *M.*, and *Zimmerli, A.*, concentration of dilute aqueous formaldehyde solutions, (P.), B., 892.
Müller, *P.*, effective metal content in siccatives and its determination, B., 147.
Müller, *Philipp, G.m.b.H.*, removing gases from boiler feed water by a vacuum, (P.), B., 33.
Müller, *P. H.*, process and apparatus for drying salt, (P.), B., 330.
separation of crystals from solution and the regeneration of heat in connexion therewith, (P.), B., 629.
Müller, *R.*, electronic formulation of organic compounds, A., 501.
Müller, *Robert*, and *Thois, F. R.*, precipitation of metals from non-aqueous solutions. II. Reactions of zinc and cadmium with nickel and cobalt chlorides in absolute ethyl alcohol, A., 31.
Müller, *R. H.*, quanta measurements of the decomposition of lactic acid in the presence of uranyl sulphate, A., 119.
Müller, *W.* See *I. G. Farbenind. A.-G.*
Müller, *W. J.*, current-potential curves of passive metals, with special reference to iron, A., 735.
anodic behaviour and passivity of nickel, A., 1145.
Müller, *W. J.*, and *Noack, E.*, passivity of chromium, A., 942.
Müller, *W. J.* See also *I. G. Farbenind. A.-G.*
Müller-Cunradi, *M.* See *Badische Anilin & Soda-Fabrik, I. G. Farbenind. A.-G.*, and *Mittasch, A.*
Müller-Tanneck, *O.*, roof for industrial ovens and furnaces, (P.), B., 321.
Münch, *E.* See *I. G. Farbenind. A.-G.*
Münch, *H.* See *Kuhn, R.*
Münch, *S.* See *I. G. Farbenind. A.-G.*
Münch, *W.* See *Braun, J. von.*
Münchmeyer, *A.* See *Fricke, R.*
Münster, *C.*, and *Thormann, K.*, preparation of a mixed salt of calcium phosphate and carbonate for nutritive purposes, (P.), B., 330.
Münzing, *E.* See *Tubandt, C.*
Müschelborn, *H.*, Schramm's method for determining in the laboratory the yields of coke and by-products from coal, and its importance in coking practice, B., 576.
Mugdan, *M.*, *Wimmer, J.*, and *Consortium für Elektrochemische Industrie*, preparation of methyl formate, (P.), B., 859.
Mugrauer, *F.*, determination of manganese and magnesium in aluminium alloys, B., 783.
Muir, *J.*, polishing of surfaces, A., 299.
Mukerjee, *K. C.* See *Watson, E. R.*
Mukherjee, *J. N.*, and *Basu, J. K.*, hydrolytic adsorption. II. Adsorption of electrolytes by barium sulphate and liberation of acids and alkalis in presence of neutral salts, A., 406.
Mukherjee, *J. N.*, *Chaudhury, S. G.*, and *Mukherjee, S.*, influence of dielectric constant of medium on rate of coagulation of an arsenious sulphide sol by electrolytes, A., 413.
Mukherjee, *J. N.*, *Ghosh, B. C.*, *Krishnamurti, K.*, *Ghosh, G. N.*, *Mitra, S. K.*, and *Roy, B. C.*, interaction between hydrated silica and neutral electrolytes in its relation to the nature of hydrolytic adsorption, A., 107.
Mukherjee, *J. N.*, and *Iyer, M. P. V.*, charge reversal by hydrogen and hydroxyl ions with insoluble organic acids and amines, and reversal of the charge of hydrated silica and copper oxide by solutions of salts, A., 414.
Mukherjee, *J. N.*, and *Kundu, P.*, adsorption by a polar precipitate. III. Electro-osmotic experiments with silver iodide, A., 409.
Mukherjee, *S.* See *Mukherjee, J. N.*
Mukoyama, *T.*, viscose solutions. I. Velocity function of viscosity, A., 201.
viscose solutions. III. Synaeresis of viscose gels, A., 625.
viscose solutions. IV. Gel-coagulation, A., 725.
viscose solutions. II. Turbidity measurements of the changes of state, B., 326.
viscose solutions. V. Viscosity minima of viscose solutions and their alteration with time. VI. Surface tension of viscose solutions, B., 810.
Mulany, *H. M.*, and *Watson, E. R.*, preparation of camphor from pinene, B., 426.
pinene content of Indian turpentine, B., 505.
Mulany, *H. M.* See also *Watson, E. R.*
Mulholland, *V.* See *Hartford-Empire Co.*
Mullen, *R. T.*, and *Crowe, W. H.*, action of diazonium salts on pyrones and their parent substances. I., A., 974.
Muller, *A.*, tables [of cleavage spacings] relating to long-carbon-chain derivatives, A., 97.
Muller, *F. R., Inc.*, manufacture of mastic sheet material, (P.), B., 367.
Muller, *H. D.* See *Böeseken, J.*
Mulligan, *F.*, manufacture of bricks, building blocks, slabs, etc., (P.), B., 110.
Mulliken, *R. S.*, electronic states and band-spectrum structure in diatomic molecules. II. Spectra involving terms essentially of the form $B(j^2 - c^2)$, A., 183.
electronic states and band spectrum structure in diatomic molecules. III. Intensity relations, A., 394.
electronic states and band spectrum structure in diatomic molecules. IV. Hund's theory; second positive nitrogen and Swan bands; alternating intensities, A., 607.
electronic states and band spectrum structure in diatomic molecules. V. Bands of the violet CN ($^2S \rightarrow ^2S$) type, A., 916.
Mulliken, *R. S.* See also *Barton, H. A.*, *Jenkins, F. A.*, and *Kemble, E. C.*
Mullinix, *R. D.* See *Rea, H. E.*
Mullot, *M. C. E.*, purifying or filtering apparatus for gaseous fluids [air for internal-combustion engines], (P.), B., 929.
Mulsow, *F. W.*, and *Paine, F. S.*, hydrogen sulphide production by bacteria, A., 593.
Munch, *J. C.* See *Wales, H.*
Mund, *W.*, and *D'Olieslager, J.*, kinetics of ozonisation by the action of α -particles, A., 319, 834.
Munday, *R. L.*, sterilisation, pasteurisation, or like treatment of milk and other liquids, (P.), B., 503.
heat-exchange apparatus, (P.), B., 736*.
Munning & Co., *A. P.*, anode [for electrolysis], (P.), B., 786.
Munro, *A. D.* See *Davies, (Miss) Christina.*
Munroe, *T. B.* See *Lathrop, E. C.*
Munters, *A. J. E.*, [circulating devices for] absorption refrigerating machines, (P.), B., 832.
Munters, *C. G.* See *Platen, B. C. von.*
Munzert, *H.* See *Eibner, A.*
Murai, *J.*, condensation of resorcinol with ethylene dicyanide [succinonitrile], A., 146*.
Murakami, *T.*, system: iron-silicon, A., 830.
Murakami, *T.*, and *Someya, K.*, stability of alkaline solutions of potassium ferricyanide used for etching in microscopy, A., 120.
Murakami, *Y.*, shaft furnace for reducing iron ores, (P.), B., 490.
Muraour, *H.*, theory of explosive reaction. I. and II., A., 736; B., 126.
Muravlev, *L.*, conversion of alkali chlorides into carbonates by the action of oxalic acid, A., 953, 1046.
Muravlev, *L.*, and *Krassnovski, O.*, precipitation of aluminium hydroxide by ammonia, and determination of alumina, A., 126.
Murdock, *W. J.*, *Lungrew, E. B.*, *Evans, O. B.*, and *Pier Process Corporation*, manufacture of combustible gas, (P.), B., 35.
Murdock, *W. J.* See also *Copley, I. C.*
Muris, *F.* See *I. G. Farbenind. A.-G.*
Murmman, *E.*, search for the sixth alkali [metal], A., 95.
Murphy, *A. J.*, and *Mason, F. A.*, absorption of odours by beer, B., 953.
Murphy, *A. J.* See also *Rosenhain, W.*
Murray, *A. F.*, determination of mercury in mercuric salicylate, B., 155.
Murray, *A. G.*, determination of terpin hydrate in terpin hydrate elixir, B., 540.
Murray, *C. D.* See *Hastings, A. B.*

Murray, *G. W., jun.* See Rice, *E. W.*
Murray, *H. L.*, and Te Aroha Dairy Co., Ltd., deodorising, cooling, and dehydrating fluids and apparatus therefor, (P.), B., 801*.
Murray, *H. L.* See also Te Aroha Dairy Co., Ltd.
Murray, *T. E.*, protection of cuprous metals against corrosion, (P.), B., 17.
protection of ferrous metals against corrosion, (P.), B., 80.
Murray, *W. J.* See Petroleum Chemical Corporation.
Murrie, *W. F. R.*, manufacture of white sugar, (P.), B., 499.
Murrill, *P. I.*, and Vanderbilt Co., Inc., *R. T.*, manufacture of an organic selenium compound; vulcanisation processes, (P.), B., 708.
Musgrave, *J. E. T.* See Bain, *J. W.*
Muskat, *M.* See Smith, *A. W.*
Muspratt, *R.* See Betts, *R. L.*
Muth, *E.*, string-formation of emulsoid particles in an alternating electric field, A., 310.
Muth, *F.*, See Heiduschka, *A.*
Muttelet, *O. F.*, detection of apple in jams, B., 122.
apple juice in "pure fruit" jams, B., 502.
analysis of preserves containing apple and fruit (determination of the apple-fruit ratio), B., 795.
Mutti, *I.*, and Montalti, *A.*, possibility of obtaining alcohol from cellulose and from wood by way of laevoglucosan, B., 471.
Mutti, *I.*, and Venturi, *M.*, influence of the preliminary alkaline treatment and of the time of chlorination in obtaining cellulose by the chlorine process, B., 904.
Myddleton, *W. W.*, and Barrett, *A. W.*, unsaturation phenomena of acetylenic acids and esters. I. Constitution of ϵ -ketoundecic acid, A., 1053.
Myddleton, *W. W.*, and Berchem, *R. G.*, action of metallic derivatives of ethyl dehydroundecenoate on alkyl halides, A., 959.
Myddleton, *W. W.*, Berchem, *R. G.*, and Barrett, *A. W.*, unsaturation phenomena of acetylenic acids and esters. II. Reaction between mercuric acetate and some acetylenic acids and esters, A., 1053.
Myers, *H. A.* See Moore, *W. C.*
Mylus, *F.*, pure nickel and technical nickel, B., 657.
Myrbäck, *K.*, and Jacobi, *W.*, enzymic conversion of aldehydes. II., A., 175.
Myrbäck, *K.*, and Nilsson, *R.*, co-zyrnase. XI., A., 484.
Myrbäck, *K.* See also Euler, *H. von.*
Myssowski, *L.*, and Tschishov, *P.*, tracks of α -particles through silver bromide in gelatin, A., 915.

N.

Naamlooze Vennootschap Algemeene Chemische Produktenhandel, degreasing of wool and other textile materials, (P.), B., 387.
degreasing wool, (P.), B., 387.
Naamlooze Vennootschap Algemeene Norit Maatschappij. See Lourens, *C.*
Naamlooze Vennootschap Bataafsche Petroleum Maatschappij. See Bataafsche Petroleum Maatschappij.
Naamlooze Vennootschap Bomomaatschappij Arina, production of alkali iodides from absorption charcoal containing iodine, (P.), B., 330.
Naamlooze Vennootschap Carbo-Union Ind. Maatschappij, cooling and drying or mechanically treating hot material which must not come in contact with the air until cold, (P.), B., 319.
Naamlooze Vennootschap Internationale Oxygenium Mij. "Novadel," treatment of meal, flour, meal- and milling-products, (P.), B., 668.
Naamlooze Vennootschap Internationale Qeep Co. See Leffer, *L. G.*
Naamlooze Vennootschap Nederlandsche Installatie Maatschappij Therna. See Petersen, *A. O. H.*
Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek, preparation of hollow artificial textile fibres from viscose, (P.), B., 519.
manufacture of textile fibres, yarns, fabric, or the like, for obtaining effects of colour or lustre or both, (P.), B., 650.
Naamlooze Vennootschap Nederlandsche Kunstzijdefabriek. See also British Enka Artificial Silk Co., Ltd.
Naamlooze Vennootschap Nederlandsche Mijnbouw en Handelsmaatschappij, manufacture of cyanides, (P.), B., 937.

Naamlooze Vennootschap Octrooi Maatschappij "Védé," manufacture of textile material for spinning and other purposes, (P.), B., 774.
Naamlooze Vennootschap Philips' Gloeilampenfabrieken, precipitating hafnium and zirconium on an incandescent body, (P.), B., 16.
sealing metal to glass, (P.), B., 80.
manufacture of fluorine, (P.), B., 107.
electric incandescence lamp, (P.), B., 116, 584.
precipitating metals on an incandescent body, (P.), B., 195.
[illumination] photometer, (P.), B., 208.
electric discharge tube, (P.), B., 226.
[magnesium electrodes] for electric discharge tubes, (P.), B., 226.
introducing potassium, caesium, or rubidium into electric discharge tubes, (P.), B., 226.
deposition of boron in coherent form, (P.), B., 252.
continuous separation of gas mixtures, (P.), B., 288.
separation of a mixture of hafnium and zirconium, (P.), B., 330, 482.
[electrodes for] gas-filled discharge tube, (P.), B., 562.
manufacture of oxide cathodes, (P.), B., 584, 705, 754.
incandescence cathode, (P.), B., 786.
drawing glass tubes or rods, (P.), B., 878.
Naamlooze Vennootschap Philips' Gloeilampenfabrieken. See also Arkel, *A. E. van*, Coster, *D.*, De Boer, *J. H.*, Hertz, *G. L.*, Holst, *G.*, and Jonas, *G. B.*
Naamlooze Vennootschap Silica en Ovenbouw Mij., regenerative coke ovens, (P.), B., 930.
Naamlooze Vennootschap Silica en Ovenbouw Mij., and Fröhlich, *O.*, handling coke discharged from coke ovens, (P.), B., 549.
Naamlooze Vennootschap Silica en Ovenbouw Mij., and Otto & Co., G.m.b.H., *C.*, coke ovens, (P.), B., 436, 740.
recovery of benzene from coal gas, (P.), B., 740.
Nabell, *H. von*, Mackey test [for oils], B., 883.
Nabenhauer, *F. P.*, and Anderson, *R. J.*, phytosterols of rice-bran fat, B., 48.
Nabenhauer, *F. P.* See also Anderson, *R. J.*, and Shriner, *R. L.*
Nachmann, *M.* See Zetzsche, *F.*
Nachmansohn, *D.* See Krebs, *H. A.*, and Rona, *P.*
Nachod, *H.* See Patent-Treuhand-Ges. für elektr. Glühlampen m.b.H.
Nachtwey, *P.* See Biltz, *H.*
Naef, *E. E.*, and Tubize Artificial Silk Co. of America, production of alkali-metal sulphhydrates, (P.), B., 749*.
Naef, *M.*, and Firmenich, *F.* (Naef & Cie.), increasing the yield of civetone, starting from civet, (P.), B., 892.
Naef & Co., *M.* See Ruzicka, *L.*
Nagai, *S.*, isomerisation of safralo under pressure, A., 57.
Nagai, *Y.*, effect of pressure on the limits of inflammability and the average life-period of activated molecules in combustion, A., 834.
Nagai, *Y.*, and Furihata, *M.*, effect of ethyl bromide on the least energy required to ignite mixtures of air and vapour of ethyl ether, A., 943.
least energy required to ignite mixtures of air and vapour of ethyl ether, A., 943.
Nagai, *Y.* See also Tanaka, *Y.*
Nagano, *M.* See Fuseya, *G.*
Nagaoka, *H.*, and Futagami, *T.*, comparison of the spectra of radon with those of uranium and thorium, A., 182.
ultra-violet arc spectrum of freshly-prepared uranium oxide, A., 286.
reversal of series lines of thallium, A., 706.
Nagaoka, *H.*, and Mishima, *T.*, magnetic separation of the mercury line 5770 into a nonet of special type, A., 179.
anomalous Zeeman effect of the mercury line 5791 and its satellite 0.124, A., 179.
reversal of neon lines, A., 705.
inverse Zeeman effect in neon lines, A., 804.
Nagaoka, *H.*, Nukiyama, *D.*, and Futagami, *T.*, instantaneous spectra of the alkaline earths, A., 809.
reversal of magnesium lines in different gases, A., 809.
instantaneous spectrograms of alkali metals by disruptive discharge, A., 809.
instantaneous spectrograms of the alkali chlorides, A., 809.
instantaneous spectrograms of copper, silver, and gold, A., 911.
instantaneous spectrograms of boron, aluminium, and thallium, A., 911.

- Nagaoka, H., Nukiyama, D., and Futagami, T., instantaneous spectrograms of zinc, cadmium, and mercury, A., 911.
 instantaneous spectrograms of carbon, silicon, tin, lead, and cerium; antimony, bismuth, and manganese; chromium, molybdenum, and tellurium; iron, cobalt, and nickel; palladium, iridium, and platinum, A., 1117.
- Nagasawa, K. See Matsushita, T.
 Nagasawa, T. See Shinosaki, H.
- Nagel, F. See Goldschmidt, S.
 Nagel, H. C. See Weil, A.
 Nagel, T., production of a binding fuel material, (P.), B., 435.
 Nagel, W., shellac; constitution of alcuritic acid, A., 447.
 Nagel, W., and Abelsdorff, R. H., decomposition of organic compounds [alkyl phthalates] by heat, A., 56.
 Nagelschmidt, G., graded phytochemical reduction, A., 902.
 precipitability of diamino-acids by mercuric acetate and sodium hydroxide, A., 961.
- Nageotte, J., fibrillous coagulation *in vitro* of collagen dissolved in a dilute acid, A., 203.
- Nagorny, A., ageing of gelatin, A., 309.
- Naidu, J. V. R. See Taylor, J.
 Naidu, P. N. R. See Taylor, J.
- Naik, K. G., and Jadhav, G. V., interaction of sulphur dichloride with substances containing the reactive methylene group or substituted methylene group, A., 444.
 Naik, K. G., and Shah, M. L., interaction of sulphuryl chloride with substances containing the reactive methylene group, A., 758.
- Nair, S. U., and Simonsen, J. L., derivatives of acenaphthpyridine, I., A., 159, 885*.
- Nairn, M., mixing machine, (P.), B., 689.
- Nakahara, W. See Yaoi, H.
- Nakai, M. See Matsumiya, K.
- Nakamura, G., bands at 2536 and 2540 Å. of mercury, A., 2.
 zero-zero band of the second positive band spectrum of nitrogen, A., 1005.
- Nakamura, H. See Bertrand, G.
- Nakamura, K., and Shimomura, A., relative ignition temperatures of solid fuels, B., 97.
- Nakamura, M. See Atsuki, K.
 Nakamura, S. See Hulthén, E.
 Nakamura, Y., browning barley. I. Proteins, A., 993.
 Nakamura, Y. See also Kita, G.
- Nakashima, R., tetrapeptide from gliadin, A., 474.
- Nakashima, S. See Kami, Y.
- Nakashima, T. See Kita, G.
- Nakata, H. See Matsumiya, K.
- Nakaya, U. See Terada, T.
- Nakazawa, F. See Krogh, A.
- Nakhmanovich, M. I., and Zelikman, I. F., effect of heat on sugar-refinery products, B., 711.
- Namasivayam, D., Liesegang rings, A., 199.
- Nametkin, S. S., and Abakumovskii, L., "oxygen value" method for the examination of petroleum products, B., 179.
- Nametkin, S. S., and Alexandrovaya, Z. P., apocycelene, A., 364.
- Nametkin, S. S., and Briusova, L. J., determination of unsaturated hydrocarbons and formation of tricyclic rings by dehydration of alcohols, A., 249.
- Nametkin, S. S., and Kursanov, D. N., dehydration of benzyl alcohol, A., 240.
- Nametkin, S. S., and Madaeva-Sitscheva, O. S., nitration of decahydronaphthalene, A., 234.
- Nametkin, S. S., and Zabrodina, A. S., true camphenone, A., 249.
- Nanji, D. R., manufacture of [prepared] starch, (P.), B., 665.
- Nanji, D. R., and Paton, F. J., manufacture of pectin products, (P.), B., 504, 616*.
- Nara, S. See Masumoto, H.
- Náray-Szabó, S. von, diffusion oxygen electrode, A., 208.
 investigation of resins with X-rays, B., 635.
- Narayan, A. L., and Rao, K. R., series in the first spark spectrum of tin, A., 803, 1118.
- Narayanan, B. T. See Kon, G. A. R.
- Nardella, A. See Mezzadrol, G.
- Nargund, K. S., and Watson, H. E., reactions of chromates at high temperatures. II. The system $\text{CaO}-\text{Cr}_2\text{O}_3-\text{O}_2$, A., 326.
- Naryschkin, N. A., action of diacetyl on magnesiylpyrrole, A., 1089.
- Naryschkin, N. A. See also Godnev, T. N.
- Nasarov, (Mile.) L. See Tschelincev, V.
- Nash, A. W., torbanite and its treatment by the Bergius method, B., 129.
- Nash, A. W. See also Bowen, A. R.
 Nash, J. E., and Worcester Salt Co., apparatus for salt purification, (P.), B., 108*.
- Nash, W. G., effect of helium on the intensity of the mercury spectrum, A., 83.
- Naske, C., kiln for burning cement, (P.), B., 334*.
- Nasledov, D., and Scharavski, P., intensity of X-ray spectra as a function of the exciting current, A., 286, 706.
 intensity of X-ray lines as a function of the number of electrons reaching the cathode, A., 706.
- Nastukoff, A. M., extended formolite analysis of crude petroleum oils, B., 209.
- Nath, B. V., and Suryanarayana, M., effect of manuring a crop on the vegetative and reproductive capacity of the seed, B., 759.
- Nathan, (Sir) F. L., fuel for internal-combustion engines, B., 642.
- Nathan, L., fermentation and ripening of beer, B., 424.
- Nathan, L. See also Hansena Akt.-Ges.
- Nathansohn, A., production of lead compounds of chromic acids, (P.), B., 787.
- Natter, E. See Demolon, A.
- National Aniline & Chemical Co., Inc. See Churchman, J. W., Field, C., Flett, L. H., Leaming, T. H., Nelson, R. A., Rogers, D. G., Wait, J. F., and Zeller, O.
- National Carbon Co., Inc. See Armstrong, G. W., Heise, G. W., and Yngve, V.
- National Lame Association. See Holmes, M. E., Mathers, F. C., and Stockett, J. W., jun.
- National Malleable & Steel Castings Co. See Schwartz, H. A.
- National Metal & Chemical Bank, Ltd. See Mackay, P. A.
- National Pigments & Chemical Co., use of a sludge-laden liquid in petroleum or gas wells, (P.), B., 245.
- National Refining Co. See Setzler, H. B.
- National Refrigerating Co. See Keyes, F. G.
- National Smelting Co. See Frost, J. G. G.
- Natta, G., application of X-rays to chemical analysis. I. Analysis of molybdenite from Zovon, A., 38.
 crystalline structure of trivalent metals. I. Chromic chloride, A., 611.
 crystal structure of caesium mercuric chloride, A., 1128.
- Natta, G., and Casazza, E., crystalline and atomic structure of ferrous hydroxide, A., 923.
- Naudé, S. M., Nessler's reagent, A., 311.
- Naugatuck Chemical Co., Cadwell, S. M., and Maximoff, A. T., manufacture of vulcanisation accelerators, (P.), B., 393.
- Naugatuck Chemical Co., and Owen, A. F., manufacture of water-proofing compositions, (P.), B., 295.
- Naugatuck Chemical Co. See also Bradley, C. E., Cadwell, S. M., Hopkinson, E., McGavack, J., Ostromisslenski, I., and Whittelsey, T.
- Naugle, J. J., filtering device, (P.), B., 64.
 method and apparatus [electric furnace] for treatment of carbonaceous material, (P.), B., 694.
- Naunton, W. J. S., connexion between constitution and accelerator action of diarylthioureas and diarylguanidines, B., 51.
- Naunton, W. J. S. See also British Dyestuffs Corporation, Ltd., and Cronshaw, C. J. T.
- Nave, G. M., apparent specific gravity and porosity; comparison of various methods, B., 383.
- Naves, R. See Durand, J. F.
- Navias, L., impact and static transverse strength [modulus of rupture] of wet-process electrical porcelain, B., 750.
- Nawiasky, P. See I. G. Farbenind. A.-G.
- Nazarov, N. S., mechanism of the electrical conductivity of metals, A., 817.
- Neale, S. M., uniformity of heavy sizing in mill practice, B., 294.
- Near, C. See Sullivan, B.
- Neave, S. L., and Buswell, A. M., chemical characteristics of sewage sludge, B., 269.
 significance of nitrogen determinations in sanitary analysis, B., 382.
 fate of grease in sludge digestion, B., 830.
- Neave, S. L. See also Buswell, A. M.
- Necheles, H., and Fernando, F., auto-digestion. II. Trypsin and "anti-trypsin," A., 174.
- Nedelmann, H. See Elöd, E.
- Niederlandsche-Ind. Spiritus Maatsch., and Jacometti, T. J. A., rendering roads dust-free by treatment with a dust-binding medium, (P.), B., 13.
- Needham, D. M., succinic acid in muscle. II. Metabolic relationships of succinic, malic, and fumaric acids, A., 790.

- Needham, G. H. See Schoetsov, R. E.
- Needham, J., ovomucoid, A., 787.
- Neeley, G. S., and Watkins, G., means and method for preventing and removing scale and incrustation in steam boilers, (P.), B., 240.
- Neergaard, P. D. von, potentiometric determination of various cations and anions in biological research, A., 284.
- Neeritche, M. See Tereschenko, A.
- Nees, A. R., electrical conductivity of solutions of granulated sugars; [determination of ash electrically], B., 637.
- Negle, A., apparatus for ozonising air and converting it into nitric oxide, (P.), B., 450.
- Negresco, T., quantitative sensitivity of spectral lines, A., 909.
- Negri, M. L., and Bado, A. A., manufacture of ferric aluminium [sulphate] by the Argentine Sanitary Works and Water Supply, B., 841.
- Nehring, K., determination of the p_H values of soils, B., 759. comparison between the acids in acid foods as determined by Wiegner's method, and the hydrogen-ion concentration, B., 857.
- Neidich, S. A., viscose-treating apparatus, (P.), B., 215. formation of colloid products, (P.), B., 872.
- Neidich, S. A. See also Mendel, W.
- Neidig, R. E., and Bollen, W. B., applicability of the indirect method of analysis to determination of sodium and potassium in soil solutions, B., 151.
- Neidig, R. E. See also Bollen, W. B.
- Neill, O. S., production of ferric oxide, (P.), B., 108*.
- Nekrassov, A. S., action of cyanogen bromide on dimagnesium acetylene dibromide, A., 1051.
- Nekrassov, B., adsorption of metal complexes on charcoal, A., 106. homologous series and *cis*- and *trans*-forms, A., 922.
- Nekrassov, B. See also Schilov, N. A.
- Nekrassov, V., nitrile of thiopropionic acid, A., 1176.
- Nekrich, M., synthesis of bentonites, B., 936.
- Nellensteyn, F. J., surface tension and wetting power of asphalt [and tar], B., 132. action of gaseous hydrogen iodide on petroleum derivatives containing sulphur, and on some organic compounds, especially thiophen, B., 244. structure of the asphalt micelle, B., 739.
- Nellensteyn, F. J. See also Pataky, W. C. H., and Waterman, H. I.
- Nellis, E. L., and Trojan Powder Co., manufacture of nitric acid, (P.), B., 652.
- Nelson, C. See King, Taudevin, & Gregson, Ltd.
- Nelson, E. K., acetyl groups in pectin, A., 80. non-volatile acids of the pear, quince, apple, loganberry, blueberry, cranberry, lemon, and pomegranate, A., 798.
- Nelson, H. A., and Schmutz, F. C., accelerated weathering, B., 84.
- Nelson, R. A., and National Aniline & Chemical Co., Inc., production of benzidine and derivatives, (P.), B., 772.
- Nelson, V. E., Jones, R. L., Adams, G., and Anderegg, L. F., cod-liver oil as food; existence of vitamin-E, B., 667.
- Nelson, W. L. See Cox, H. L.
- Némee, A., phosphoric acid needs of soils determined by colorimetric method; effect of calcium and iron, B., 170. degree of humification of the dead covering of forest soils, B., 587. colorimetric determination of potassium in aqueous extracts of soils as an indicator of lack of manuring, B., 918.
- Nemeth, K., and Szanto, A., electric accumulator, (P.), B., 850.
- Nemilov, Y. A. See Kurnakov, N. S.
- Nenadkevitch, K. A. See Bonstedt, E. M.
- Nenitzesco, C. D., electronic configurations of complex salts, A., 610.
- Neogi, P., and Mitra, A. K., new scaly variety of aluminium hydroxide, A., 741.
- Neogi, P., and Neogi, S., period of induction in chemical reactions; interaction of mercuric chloride and sodium hydrogen carbonate, A., 214.
- Neogi, S. See Neogi, P.
- Neresheimer, H. See I. G. Farbenind. A.-G.
- Neri, A. See Oliveri-Mandalà, E.
- Nernst, W., and Orthmann, W., heat of dilution of salts at very small concentrations, A., 733.
- Nesbitt, S. G. M., Butler, J. B., and Drumm, J. J., treatment of vegetable produce, (P.), B., 314.
- Nesfield, A. C., and Goodricke, L. F., manufacture of soap, (P.), B., 304.
- Ness, H. E. van. See Eclipse Textile Devices, Inc.
- Nestle, K. T. See Reihlen, H.
- Nestlé & Anglo-Swiss Condensed Milk Co., atomisation and desiccation of liquids [milk], (P.), B., 26, 207. [nozzles, etc. for the] atomisation and desiccation of liquids and solutions, (P.), B., 242.
- Nettle, W. H. V. See Harvey, R. J.
- Nettlenbusch, L., reactivity of coke, B., 208.
- Neubauer, E., secretion of bile. IV., A., 692.
- Neubauer, H., determination of easily-soluble phosphoric acid in soil, B., 120.
- Neuberg, C., velocity of fermentation of pyruvic acid and the theory of fermentation, A., 379.
- Neuberg, C., and Kitasato, T., synthesis of α -ketogluconic acid, A., 544.
- Neuberg, C., and Kobel, M., fermentability of free and phosphorylated hexoses and a polarimetric proof of their fixation in the yeast-cell, A., 378. changes in fresh and dried tobacco leaves before and during fermentation, A., 385. formation of pure *l*-lactic acid by fresh and dry yeast and of *dl*-lactic acid by yeast maceration juice, A., 592. behaviour of hexoses and hexosemonophosphoric acids to serum and amino-acids, A., 652. degradation of amino-acids and amino-purines by methylglyoxal and related substances, A., 863.
- Neuberg, C., and Komarevsky, W., fermentative transformation of benzoylmethylcarbinol by yeast, A., 700.
- Neuberg, C., and Leibowitz, J., hexosemonophosphoric acid obtained from yeast fermentation, A., 700. enzymic conversion of hexosediphosphate into hexosemonophosphate and the enzymic synthesis of hexosediphosphate from hexosemonophosphate, A., 993.
- Neuberg, C., and Simon, E., biochemistry of asymmetry (asymmetric dismutation), A., 379. detection of sugar in presence of proteins and the supposed condensation of carbohydrates with albumin, A., 450. fermentation of pyruvic acid, A., 902. quantitative dismutation of methylglyoxal to lactic acid by *Bacillus Delbrücki* and by *Bacterium lactis aerogenes*; irregular behaviour of phenylglyoxal in this reaction, A., 903.
- Neubronner, K., direct production of end-point petrol from cracking plants, B., 594. Eisingen shale oil, B., 737.
- Neudecker, H. See Sauerwald, F.
- Neuenstein, W. von, solubility of cellulose derivatives, B., 327.
- Neugebauer, H., formation of colloid systems of trituration, A., 1137.
- Neugebauer, W. See Kalle & Co. A.-G. and Schmidt, M. P.
- Neuhauss, H. See Körher, F.
- Neumann, B., preparation of sulphur dioxide from gypsum, B., 106.
- Neumann, B., and Kober, S., bleaching action of fuller's earth on oils, B., 493.
- Neumann, B., and Reinsch, O., extraction of bauxite by caustic soda without pressure, B., 106.
- Neumann, B., and Rupprecht, M., ancient glass. II., B., 778.
- Neumann, E., treatment of metallic surfaces with aluminium, B., 631.
- Neumann, G., structure and strength of cast iron, B., 844.
- Neumann, R., and Steinschneider, L., method and apparatus for distilling mineral oils, tar, etc., (P.), B., 291.
- Neumann, S., manufacture of viscose solutions, (P.), B., 328.
- Neuschlosz, S. M. See Estrada, O. P.
- Neutrasol Products Corporation, and Pohl, E., manufacture [sizing] of artificial silk and other textile fibre, (P.), B., 746.
- Neven, H., and De Paniagua, Y., apparatus for the solidification of liquid hydrocarbons, (P.), B., 741.
- Nevill, P. W., manufacture of sponge iron, (P.), B., 657.
- Nevill, P. W. See also Copper Separation, Ltd.
- New Jersey Zinc Co., zinc sulphide pigment, (P.), B., 259. treatment of zinciferous materials, (P.), B., 682.
- New Jersey Zinc Co., Breyer, F. G., and Bunce, E. H., [conveyor for use in] metallurgical operations [employing briquettes], (P.), B., 913.
- New Jersey Zinc Co., Breyer, F. G., Bunce, E. H., and Weikel, J. H., treatment of zinc oxide [for rubber compounding], (P.), B., 107.
- New Jersey Zinc Co., Mahler, G. T., Handwerk, E. C., and Bunce, E. H., (P.), B., 114.

- New Jersey Zinc Co., Peirce, W. McG., and Anderson, E. A., zinc alloys particularly suitable for casting, (P.), B., 115.
- New Jersey Zinc Co., Singmaster, J. A., Breyer, F. G., and Bunce, E. H., manufacture of zinc oxide, (P.), B., 916.
- New Liverpool Rubber Co., Ltd., and Amende, F., vulcanisation of rubber articles and apparatus therefor, (P.), B., 917.
- New Process Multi-castings Co., plant for treating molten iron, (P.), B., 369.
- Newall, H. E., and Sinnatt, F. S., carbonisation of particles of coal; cenospheres. III., B., 242.
- Newbery, E., anodic overvoltage measurements with the cathode-ray oscillograph, A., 210.
- Newbery, G., and May & Baker, Ltd., manufacture of solutions of aminoaryldichloroarsines or aminoarylarsenious oxides, (P.), B., 29.
manufacture of asymmetrically acylated amino-derivatives of arylarseno-compounds, (P.), B., 507.
- Newbery, G., Paxton, F. J., and May & Baker, Ltd., manufacture of asymmetrical arylarseno-compounds, (P.), B., 507.
- Newbery, G. See also Ewins, A. J.
- Newbery, I. B., retort, (P.), B., 63.
- Newburger, M. B. See Gray, G. A.
- Newhouse, R. C., and Allis-Chalmers Manufacturing Co., comminuting mill, (P.), B., 352.
- Newhouse, R. C. See also Allis-Chalmers Manufacturing Co.
- Newitt, D. M. See Bone, W. A.
- Newitt, H. R. See Herman, J.
- Newkirk, W. B., and International Patents Development Co., manufacture of large-grained dextrose, (P.), B., 888*.
- Newkirk, W. B. See also Corn Products Refining Co.
- Newman, D. F. See British Thomson-Houston Co., Ltd.
- Newman, F. H., flash arc spectrum of potassium, A., 2.
flash arc spectrum of rubidium, A., 178.
flash arc spectrum of sodium, A., 285.
flash arc spectrum of caesium, A., 390.
- Newman, L. H. See Folin, O.
- Newman, R. K., Trikojus, V. M., and Harker, G., use of phosphorus pentachloride in the preparation of glycerides, A., 40.
- Newport Co., preparation of [3]-nitro-[4]-aminobenzoyl-*o*-benzoic acid and derivatives, (P.), B., 773*.
preparation of 2-chloroquinizarin, (P.), B., 838.
- Newport Co. See also Adams, R., Gubelmann, I., Oeseh, J. B., Schmidt, J. G., and Ulich, L. H.
- Newton, D. L., apparatus for absorption of hydrocarbons, (P.), B., 133.
absorption and distillation of hydrocarbons, (P.), B., 517.
- Newton, E. B., Benedict, S. R., and Dakin, H. D., constitution of thiasine, A., 468.
thiasine; its structure and identification with ergothioneine, A., 477.
- Newton, E. B. See also Ellis, M. M.
- Newton, G. A., and Danilov, K. B., influence of manures and organic residues on plant growth, B., 759.
- Newton, W., metabolism of nitrogen compounds in dormant and non-dormant potato tubers, B., 973.
- Newton, W. H. See McSwiney, B. A.
- Newton Process Manufacturing Co. See Kobernik, J. E.
- Ni, T. G., inverse change between the concentration of dextrose and chloride in the blood, A., 68.
- Niccoli, E., production of potassium salts [from sea water], (P.), B., 75.
sea waters and the potash problem. III. Preliminary industrial attempts to apply the Niccoli process, B., 249.
- Nicholas, S. D. See Cooper, E. A.
- Nicholas, W. W., X-ray spectrometer with which wave-lengths are read directly on an ordinary micrometer screw, A., 390.
X-ray isochromats of copper taken in different directions relative to the cathode stream, A., 602.
- Nicholls, J. R., detection of prohibited vegetable and coal-tar colours in foodstuffs, B., 922.
- Nichols, E. G. See Loeb, R. F.
- Nichols, E. L., links connecting fluorescence and the luminescence of incandescent solids, A., 91.
- Nichols, E. L., and Howes, H. L., rare earths as activators of luminescence, A., 7.
- Nichols, E. L., Howes, H. L., and Wilber, D. T., transformation spectra, A., 607.
- Nichols, E. P. See Pfandler, Co.
- Nichols, J. B., and Liebe, H. C., centrifugal determination of the distribution of the size of particles of suspended material, A., 308.
- Nichols, J. B. See also Svedberg, T.
- Nichols, M. F. See Hunter, W. K.
- Nichols Copper Co. See Hartley, H. J.
- Nicholson, V. S. See Haworth, W. N.
- Nieloux, M., micro-determination of carbon, A., 436.
determination of carbon dioxide and of carbonates in solution;
determination of carbon dioxide in whole blood, plasma, serum, corpuscles, bile, urine, and mineral waters, A., 996.
- Nicodemus, O. See I. G. Farbenind. A.-G.
- Nicol, H., preparation of red colloidal gold, A., 510.
- Nicolai, H. W., enzymic metabolism of bacteria. III., A., 77.
- Nicolai, H. W. See also Rona, P.
- Nicolardot, P., changes in optical glasses, B., 702.
- Nicolau, (M.). See Levaditi, C.
- Nicolau, (Mme.). See Levaditi, C.
- Nicolet, B. H., positive halogens attached to carbon in the aromatic series. V. Analogy between positive and negative halogens, A., 869.
- Nicolet, B. H., and Bate, L. F., ψ -thiohydantoins and α -mercapto-acids from higher fatty acids, A., 977.
- Nicolet, B. H., and DeMilt, C. M., phenylstearic acid from oleic acid, A., 560.
- Nicolet, B. H., and Ray, W. L., positive halogens attached to carbon in the aromatic series. III. Derivatives of *p*-phenylenediamine, *p*-nitroaniline, and mesitylene, A., 869.
- Nicolet, B. H., and Sampey, J. R., positive halogens attached to carbon in the aromatic series. II. Iodine derivatives of *m*-phenylenediamine and of resorcinol, A., 868.
- Nicolet, B. H., and Sandin, R. B., positive halogens attached to carbon in the aromatic series. IV. Selectivity of halogen removal, A., 868.
- Nicolet, B. H., and Sattler, H., suggested mechanism of the splitting of the cyclopropane ring by bromine, A., 1068.
- Nicolet, G. See Berthoud, A.
- Nicollet, M., measurement of hardness by the Rockwell machine, B., 46*.
- Niederhauser, F. C., Sunderland, A. E., and Viscose Co., manufacture of artificial silk, (P.), B., 519.
- Niederhoffs, P., chemical action of cod-liver oil and of adrenalino on the photographic plate, A., 30.
ultra-violet spectrograms of carbohydrates, A., 396.
absorption of ultra-violet light by aqueous sugar solutions in relation to the constitution of the sugar molecules, A., 724.
- Niedzwiedzka, H. See Przylecki, S. J.
- Niel, C. B. van, determination of diacetyl and acetylmethyl-carbinol, A., 1101.
- Nieland, H. See Stollé, R.
- Nieland, N. See Stollé, R.
- Nielsen, C., and Abbott Laboratories, infant's food, (P.), B., 123.
- Nielsen, H., and Baker, S., lubricating oils from coal, B., 834.
- Nielsen, H., and Laing, B., treatment of carbonaceous material, (P.), B., 68*.
manufacture of gas, (P.), B., 273.
manufacture of water-gas, (P.), B., 436.
manufacture of illuminating and industrial gases, (P.), B., 644.
distillation of carbonaceous materials, (P.), B., 867.
- Nielsen, H. See also Pummerer, R.
- Nielsen, J. R., and Bieber, R., m. p. of sodium, A., 1019.
- Nielsen, R. F., and Brown, D. J., potential of a proposed standard form of copper and the activity of copper sulphate, A., 1144.
- Niemann, H. See Scholder, R.
- Niementowski, S. von. See Hozer, L.
- Nierenstein, M., flask for recovery of volatile liquids, A., 38.
methylation with diazomethane, A., 1059.
- Nierenstein, M. See also Dale, R. T.
- Niese, G. See Ruff, O.
- Niessen, E. von, treatment of wet peat with porous materials, (P.), B., 515.
- Niessen, K. F., ionisation potential and the fine line spectrum of hydrogen, A., 801.
energy computations in a simple four-body system, A., 808.
- Niesser, M. See Moser, L.
- Nietz, A. H., and Whitaker, R. A., effects of dilution and stirring of a photographic developer, B., 60, 380*.
- Nieuwenburg, C. J. van, and De Groot, G. P., determination of nitrate-nitrogen by reduction to ammonia, A., 534.
- Nievergelt, O. See Karrer, P.
- Niewodniczański, H., fluorescence of superheated mercury vapour, A., 91.
- Nightingale, (Miss) D. See Dufford, R. T.

- Nightingale, D. A., and Ketoid Co., manufacturing ketens, (P.), B., 28.
 making acetylsalicylic acid, (P.), B., 59.
 making cellulose esters of carboxylic acids, (P.), B., 59.
- Nightingale, G. T., chemical composition of plants in relation to photoperiodic changes, A., 1225.
- Nightingale, G. T., and Schermerhorn, L. G., nitrate utilisation by asparagus in the absence of light, A., 384.
- Nijhoff, G. P. See Urk, A. T. van.
- Nijholt, J. A. See Waterman, H. I.
- Nikaido, Y. See Molony, S. B.
- Nikitin, B. See Chlopin, V.
- Nikitin, N. I., absorption of hydrogen and carbon dioxide by pyrophoric iron, nickel, and cobalt. I., A., 406.
- Nikitin, N. I., and Sharkov, W. I., absorption of gases by finely-divided metals. II., A., 406.
- Niklas, H., Pürokhauser, R., and Poschenrieder, H., relation between the available phosphoric acid of soils and the geological formation, B., 709.
- Niklas, H., Scharrer, K., and Strobel, A., phosphate solubility and the growth of *Azotobacter*, B., 88.
 further manurial experiments with superphosphate, basic slag, Rhonania phosphate, and dicalcium phosphate on four different types of soil, B., 88.
 evaluation of phosphoric acid in Rhonania phosphate, B., 198.
 influence of twelve years' continuous potash manuring on the crop yield, and the physics, chemistry, and mycology of the soil, B., 394.
- Nikogossian, C. See Ginsberg, A. S.
- Nikolaiev, K. See Sbarsky, B.
- Nikolaiev, P. T., univariant systems, isothermal surfaces, and three-dimensional ridges, A., 313.
 cryohydric curves of the ternary system $\text{Na}_2\text{O}-\text{N}_2\text{O}_5-\text{H}_2\text{O}$, A., 313.
- Nikolaiev, V. T. See also Ipatiev, V. N., and Kurnakov, N. S.
- Nikolić, R. See Scheibler, H.
- Nikolski, B. P. See Vrevski, M. S.
- Nilov, V. I., and Williams, V. F., ethereal oils of Crimean plants, B., 956.
- Nilov, V. I. See also Demjanov, N. J.
- Nilson, G. E. R., manufacture of metals and alloys [e.g., ferro-manganese] of low carbon content, (P.), B., 942.
- Nilsson, R., and Jansson, B., comparison between oxido-reduction and carbon dioxide production by yeast-enzymes, A., 993.
- Nilsson, R., and Lövgren, T., phosphorylation and oxido-reduction [in fermentation], A., 378.
- Nilsson, R. See also Euler, H. von, and Myrbäck, K.
- Ninck, A., new hyper-sensitising methods for autochrome plates and others, B., 203.
- Nisbet, H. B., reduction of nitro-compounds by aromatic ketols. I. Some p-azoxy-compounds, A., 1063.
- Nishida, K., and Wakamiya, K., size of bamboo fibre and its variation with certain constituents, B., 698.
- Nishikawa, K., taka-diastase, A., 1111.
- Nishina, Y. See Aoyama, S.
- Nishio, S., optical anomalies of calcite under pressure, A., 188.
- Nissen, B. H. See Hunziker, O. F.
- Niszel, F. See Fuchs, W.
- Nitardy, F. W., and Squibb, E. R., & Sons, preservation of oils, (P.), B., 417.
- Nitrogen Corporation. See Arnold, E. E.
- Nitze, H. See Freundlich, H.
- Nitzescu, I. I., Popoviciu, G., and Denes-Goetz, J., isolation of the antirachitic fraction of cholesterol irradiated by ultra-violet rays, A., 487.
- Nitzsch, W., laws governing the porosity of soils and their application to agriculture, B., 566.
- Nitzschke, O. See I. G. Farbenind. A.-G.
- Nitzschmann, R., flame temperature of producer gas with air and gas preheating, B., 322.
 determination of pressure of liquefied gases within containers, B., 511.
- Nitzschmann, R., and Vogel, E., volumetric relationships in the burning of hydrogen sulphide to sulphurous acid, B., 700.
- Niven, C. D., chemical valency, A., 714.
- Niven, C. D. See also McLennan, J. C.
- Nixon, I. G. See Barnett, E. de B.
- Nisogy, S. C., preparation of o-chloro-p-aminoacetanilide, A., 760.
 sodium 3-chloro-4-acetamidophenylstibinate, A., 983.
- Noack, E. See Müller, W. J.
- Noack, K., condition of chlorophyll in the living plant; rôle of iron in carbon dioxide assimilation by green plants, A., 595.
- Noack, W. See Scheiber, J.
- Nobel, N., macerating sugar-containing materials, (P.), B., 264.
- Nobel's Explosives Co., Ltd. See Scharff, G. E.
- Noblee & Thorl, Nachfolg. See Krupp, F., Grusonwerk A.-G.
- Noddack, I., and Noddack, W., preparation and chemical properties of rhenium, A., 532.
- Noddack, W. See Eggert, J., and Noddack, I.
- Nodzu, R., synthesis of the phosphoric acid esters. III. Synthesis of some hexosemonophosphoric esters and their behaviour towards yeast, A., 539.
 hydrolysis of the dipropylidenehexosemonophosphoric acid esters, A., 539.
- Noë, A. See Freudenberg, K.
- Noël, C., enamelling metal articles, (P.), B., 253.
- Noeggerath, J. E., high-pressure system for electrolytic processes, more especially for the production of hydrogen and oxygen, (P.), B., 416.
 electrolytic [pressure] system [for the generation of gases], (P.), B., 562.
- Nöjd, H. D., lupeol, A., 772.
- Noeldechen, J., stimulating action of metal salts on the germination of barley, B., 198.
- Noetzel, O., determination of nitrate- and nitrite-nitrogen in meat, B., 539.
 determination of isopropyl alcohol in the presence of ethyl alcohol, B., 668.
 determination of benzoic acid [in foods, wines, etc.], B., 668.
- Nolden, C. P. See Hopfelt, R.
- Noldin, F., manufacture of vinegar, (P.), B., 711.
- Noldin, F., and Hassack, P., vinegar manufacture, (P.), B., 122.
- Nolte, O., importance of potash salts (and naturally-occurring impurities) for soils and for plants used for human food, B., 498.
- Nolte, O., and Leonhards, R., nitrogen-manuring, and the profitable cultivation of cereals, B., 262, 566.
 phosphate manuring, B., 262.
- Nolte, O. See also Gerlach, M.
- Nolze G.m.b.H. Gasreinigung & Kühlerbau, Kaiserslautern, separation of tar from gases, (P.), B., 835.
- Nomura, H., and Tsurumi, S., pungent principles of ginger. III. and IV. Constitution and synthesis of shogaol, A., 770, 972*.
 synthesis of 4-hydroxy-3-methoxystyryl n-butyl ketone, A., 1078.
 homologues of zingerone. II., A., 1078.
- Nonhebel, G., activity coefficients of aqueous hydrochloric acid at extreme dilutions, A., 21.
- Nonhebel, G., Colvin, J., Patterson, H. S., and Whytlaw-Gray, R., coagulation of smokes and the theory of Smoluchowski, A., 1139.
- Norbury, A. L., thermo-electric properties of certain metallic solid solutions, A., 197.
- Nord, F., preparation of halogenated alcohols, (P.), B., 347.
- Nord, F. F., influence of heat and hydrogen-ion concentration on biological transportation systems containing sulphur, A., 791.
 mechanism of enzyme action, A., 900.
- Nord, F. F., and White, M. G., fermentation tube, A., 993.
- Nordell, C. H., continuous softening of water by the use of zeolites, (P.), B., 206.
- Nordlander, B. W., selenium sulphide; a detector for mercury vapour, B., 415.
 determination of mercury vapour, B., 415.
- Nordström, O., evaporation of solutions by spraying and subsequently drying the dissolved substance, (P.), B., 463.
- Norlin, E., Swedish Government regulations concerning the weighting of leather and methods of analysing it, B., 393.
- Norling, K. A. P. See Svensson, K. J.
- Normand, A. R., Ross, J. D., and Henderson, E., distribution of intensity in the X-ray spectra of the normal saturated dicarboxylic acids, their diethyl and monoethyl esters, A., 612.
- Normand, E., G., & M. See De Guillebon, G.
- Norrbin, S. See Melin, E.
- Norris, G. C. See Stevens, R. H.
- Norris, J. F., and Cortese, F., reactivity of atoms and groups in organic compounds. II. Relative reactivities of the hydroxyl hydrogen atoms in certain alcohols, A., 1166.
- Norris, J. F., and Jonbert, J. M., polymerisation of the amylenes, A., 440.
- Norris, J. F., and Renter, R., rearrangement of isopropylethylene to trimethylethylene and the pyrogenic decomposition of Δ^8 -pentene and trimethylethylene, A., 1165.

- Norrish, *R. G. W.*, decomposition of nitrogen pentoxide, A., 119.
photochemical equilibrium in nitrogen peroxide. I., A., 528.
- Norsk Hydro-Elektrisk Kvaelfstofakt., production of granulated dust-free nitrate of lime, (P.), B., 482.
- Norske Aktieselskab for Elektrokemisk Industri, electrodes for electric furnaces, (P.), B., 226, 257.
[contacts for self-baking] electrodes for electric furnaces, (P.), B., 562.
- North, *C. E. H.*, and *Hudson, A. H.*, motor fuel, (P.), B., 740.
- North, *C. O.*, production of higher aldehyde derivatives of reaction products of aldehydes and amines, (P.), B., 392.
- North, *C. O.*, and Rubber Service Laboratories Co., manufacturing [spongy] rubber goods, (P.), B., 19.
process of rubber vulcanisation, (P.), B., 789.
manufacture of aldehyde reaction products [accelerators] of the aldehyde derivative of a Schiff's base, (P.), B., 885.
- North, *C. O.* See also Rubber Service Laboratories Co.
- North, *N. E.*, protective coatings for metals, (P.), B., 80.
electric furnaces, ovens, and other heating chambers, (P.), B., 117*.
- Northrop, *J. H.*, swelling of isoelectric gelatin in water. I. Equilibrium conditions, A., 825.
kinetics of osmosis, A., 826.
kinetics of the swelling of cells and tissues, A., 1108.
- Northrop, *J. H.*, and *Kunitz, M.*, swelling of isoelectric gelatin in water. II. Kinetics, A., 825.
- Northrup, *E. F.*, electric induction furnace, (P.), B., 660.
high speed-high frequency inductive heating, B., 683.
- Northrup, *E. F.* See also Ajax Electrothermic Corporation.
- Northrup, *H. B.*, case carburisation of steels by means of salt baths of low cyanide concentration, B., 844.
- Northrup, *V. W.*, process and apparatus for the conversion of heavy hydrocarbon oils into lighter oils, (P.), B., 741.
- Northrup, *V. W.*, and Petroleum Hydrogenation Co. of America, Inc., conversion of heavy petroleum oils into lighter oils, (P.), B., 807*.
- Northwestern Yeast Co., manufacture of a food and the product thereof, (P.), B., 203.
- Northwestern Yeast Co. See also *Hill, C. B.*
- Norton, *B.*, washers for coal and the like, (P.), B., 577.
- Norton, *E. A.* See *Smith, R. S.*
- Norton, *F. H.*, thermal conductivity of refractories, B., 220.
photographic exposure meter and photometer, B., 621.
- Norton, *F. J.*, and *Johnston, J.*, transition temperature and solubility of sodium sulphate in presence of sodium chloride or sodium bromide, A., 22.
equilibrium pressure of certain hydrated salts, A., 103.
- Norton Co. See *Booze, M. C.*, and *Milligan, L. H.*
- Nostitz, *A. von*, preparation of a soil for practical suspension analysis, B., 855.
- Nothnagel, *M.* See *Rosenmund, K. W.*
- Notkina, *L.* See *Zaleski, V.*
- Nottbohm, *F. E.*, interruption of milking and composition of milk, B., 666.
milk supply of towns, B., 954.
- Nottin, *M. P.*, hydrolysis of starch by sulphuric acid, A., 650.
- Nováček, *J.* See *Dědek, J.*
- Novadel Process Corporation. See *Gelissen, H. C. J. H.*, and *Lande, J. A. L. van der*.
- Novak, *P.* See *Schiemann, G.*
- Novello, *N. J.*, fate of heterocyclic compounds in the animal body, A., 899.
- Novikov, *W.* See *Bag, A.*
- Novosselov, *A. V.* See *Krause, E. F.*
- Novotny, *E. E.*, *Romieux, C. J.*, and *Stokes, J. S.*, waterproofing vulcanised fibre, (P.), B., 295.
- Novotny, *R.*, diffusion of water-soluble substances in impregnated wood, B., 842.
- Nowack, *L.*, influence of small quantities of bismuth, tin, lead, etc. on the structure and working properties of gold and gold alloys, B., 559.
- Noyes, *H. M.*, and *Falk, K. G.*, enzyme action. XL. Time changes in ester-hydrolysing enzymes of extracts of whole rats of different ages. XLI. Extracts of mice. XLII. Extracts of human uterine muscle and uterine fibroids. XLIII. Extracts of rabbit tissues, A., 483.
- Noyes, *H. M.*, *Lorberblatt, I.*, and *Falk, K. G.*, enzyme action. XLVI. Ester-hydrolysing actions of whole trout preparations under various conditions, A., 901.
- Noyes, *H. M.* See also *Falk, K. G.*
- Noyes, *W. A.*, illinium, A., 296.
florentium or illinium? A., 714.
magnetic hydrogen atoms and non-magnetic molecules, A., 807.
relation of the octet of electrons to ionisation, A., 814.
relation between shared electrons and valency: principal and contra valencies, A., 1128.
- Noyes, *W. A., jun.*, voltage necessary to maintain a luminous discharge in hydrogen, A., 709.
- Noyes, *W. A., jun.* See also *Kassel, L. S.*, and *Wobbe, D. E.*
- Nozoe, *T.*, reduction of quinoline-2:4-dicarboxylic acid, A., 364.
- Nuding, *J.*, manuring of chicory, B., 343.
- Nüssel, *H.* See *Bertho, A.*
- Nugent, *R. L.* See *Buehrer, T. F.*
- Nukiyama, *D.* See *Nagaoka, H.*
- Numa, *M.*, viscose III; conditions of xanthation, B., 69.
- Nunn, *N. J. S.*, impregnating leather and other materials with rubber, (P.), B., 52.
- Nussbaum, *J.* See *Bamberger, M.*
- Nussbaum, *K.* See *Fränkel, S.*
- Nutland, *J. H.* See *Kon, G. A. R.*
- Nutrient, Ltd., and Tattersall, *T. W.*, centrifugal machines for the treatment of vaccine or similar substances, (P.), B., 173.
- Nuttall, *J. M.*, and *Williams, E. J.*, β -rays associated with scattered X-rays, A., 84.
- Nutting, *P. G.*, adsorptive force of silica for water, A., 509.
mechanical properties of moist granular solids, B., 431.
- Nuys, *C. C. van*, and Air Reduction Co., Inc., apparatus for separating constituents of gaseous mixtures, (P.), B., 320.
- Nyberg, *H. D.*, galvanic cell, (P.), B., 371*.
- Nyborg, *N. N. T.* See *Meredith, S. C.*
- Nyman, *A.*, and *Dubilier Condenser Corporation*, beryllium filament, (P.), B., 450.
- Nyro, *A.*, apparatus for atomising and drying liquids, (P.), B., 801.
- Nyswander, *R. E.*, and *Lind, S. C.*, measurements of the thermophosphorescence of glass produced by radium radiation, A., 91.
- O.
- Oakes, *B. J.*, analysis of lacquers, B., 84.
- Oakeshott, *S. H.*, and *Plant, S. G. P.*, condensation of substituted anilines with cyclopentanonecyanohydrin; derivatives of 1-anilinocyclopentane-1-carboxylic acid, A., 355.
- Oakley, *H. B.* See *Joseph, A. F.*
- Oakley, *P. D.* See *Siemens & English Electric Lamp Co., Ltd.*
- Obata, *J.*, relation between temperature and Hall effect in some alloys, B., 726.
- Oberhauser, *F.*, separation of phosphoric acid in qualitative analysis by means of zirconium salts, A., 222.
behaviour of cyanogen bromide towards metallic salts, A., 756.
- Oberhauser, *F.*, and *Heusinger, W.*, determination of formic acid, A., 475.
- Oberhoffer, *P.*, and *Ammann, E.*, determination of oxide inclusions in pig iron and steel, B., 967.
- Oberhoffer, *P.*, and *Grosse, W.*, specific heat of iron, B., 389.
- Oberhoffer, *P.*, and *Pivovarsky, E.*, oxygen in pig iron and cast iron, B., 368.
- Oberhoffer, *P.*, and *Schenek, H.*, deoxidation of iron with manganese, B., 966.
- Oberhoffer, *P.*, *Schiffner, H. J.*, and *Hessenbruch, W.*, oxygen in iron and steel, B., 966.
- Oberle, *A.*, production of carbonaceous material, (P.), B., 769.
- Oberle, *A.*, and *Scofield, T. E.*, process for recovering vanadium from petroleum hydrocarbons, (P.), B., 962.
- Oberlin, *H.* See *Pfeiffer, P.*
- Oberlin, *M.*, hydrolysis of alkoxyl groups in alkaloids by means of aluminium chloride, A., 681.
condensations with methylhydrastinine [and cotarnine], A., 681.
- Oberlin, *M.* See also *Merck, E.*, Chem. Fabr.
- Obermiller, *J.*, bringing air or other gases to a desired degree of humidity, (P.), B., 175.
dehydration of sodium sulphate decahydrate at the ordinary temperature, B., 600.
- Oberrheinische Handelsges.m.b.H., treating artificial silk fibres, (P.), B., 70.

- Oberrheinische Handelsges.m.b.H., and Ubbelohde, *L.*, production of fibres capable of being spun, (P.), B., 214.
- O'Brien, *W. G.*, and Goodyear Tire & Rubber Co., manufacture of a rubberised fibre composition, (P.), B., 70.
[precipitation] treatment of rubber, (P.), B., 533.
- O'Brien, *W. J.*, process of refining barytes, (P.), B., 777.
- Obrist, *J.*, and Manfred, *O.*, examination of artificial horn made from casein, B., 21.
- Obrist, *J.* See also Manfred, *O.*
- Obrutscheva, *A.* See Frumkin, *A.*
- O'Callaghan, *M.*, improvement of creams which have undergone certain fermentations, and production of butter, (P.), B., 345.
- Ochwat, *P.* See Schirmacher, *K.*
- O'Connor, *M.* See Lennox, *W. G.*
- Oda, *T.*, synthetic action of pepsin, A., 174.
- Oda, *Y.*, phosphorus distribution in muscle and liver under different conditions, especially under the influence of hormones, A., 282.
effect of quinine and of some hormone preparations on the phosphoric acid hydrolysis during autolysis of muscle and liver, A., 282.
- Oddo, *B.*, and Mingoia, *Q.*, syntheses by means of magnesium [magnesium] pyrrole. II. Reactions with inorganic anhydrides and chloroanhydrides and formation and constitution of some sulphur derivatives of indole, A., 158, 1093.
opening of the glyoxaline ring, A., 260.
variations in the sweetening power of saccharin and of some of its derivatives, A., 874.
transpositions in discatole, A., 1088.
- Oddo, *G.*, liquid, fibrous, and colloidal sulphur trioxide, A., 300.
sulphuric anhydrides and sulphuric [acids], A., 432.
- Oddo, *G.*, and Casalino, *A.*, mol. wt. of sulphur trioxide from vapour density, A., 300.
mol. wt. of sulphur trioxide in various solvents, A., 312.
behaviour of sulphur trioxide with phosphorus oxychloride, A., 312.
- Oddo, *G.*, and Sconzo, *A.*, behaviour and constitution of mono-sulphuric and disulphuric anhydrides. VI., A., 432.
- Odén, *S.*, and Lindberg, *S.*, action of sodium hydroxide on cellulose under high pressure, B., 405.
- Odén, *S.* See also Melin, *E.*
- Odin, *M.*, acid production in diabetes, A., 1106.
- Odom, *L. L.*, and M.O.R. Products Co., removal of sulphur compounds from petroleum oils, (P.), B., 35.
manufacture of a substitute for turpentine, (P.), B., 531.
- O'Donoghue, *B.*, Ryan, *H.*, and Keane, *J.*, derivatives of methyl α -piperonylidene-ethyl ketone, A., 462.
derivatives of piperonylideneethyl ethyl ketone, A., 462.
- Oehme, *H.* See Chemische Fabrik Kalk G.m.b.H.
- Ölander, *A.*, kinetics of oxime formation, A., 1036.
- Oelwerke Stern-Sonneborn A.-G., production of emulsions of lubricating oils, (P.), B., 182.
- Öman, *E.*, amphoteric nature of cellulose, A., 1058.
- Oertel, *R.*, and Metallbank & Metallurgische Ges. Akt.-Ges., recovery of volatile solvents [from gas], (P.), B., 517*.
- Oertel, *W.*, and Gloekensstahlwerke Akt.-Ges. vorm. R. Lindenberg, steel alloy, (P.), B., 632.
- Oertel, *W.*, and Würth, *K.*, influence of molybdenum and silicon on the properties of non-rusting chromium steels, B., 681.
- Oertel, *W.* See also Eichenberg, *G.*, and Eilander, *W.*
- Oesch, *J. B.*, and Newport Co., trisazo-dye; tetrakisazo-dye, (P.), B., 135, 246.
- Oestermann, *H.* See Rechberg G.m.b.H., A.
- Oesterreichische Bamag-Büttner-Werke Akt.-Ges., and Jahn, *R.*, smelting of antimony, arsenic, and mercury ores, (P.), B., 705.
- Oesterreichische Chemische Werke G.m.b.H., production of persulphuric acid and its soluble salts from sulphuric acid by electrolysis, (P.), B., 440.
- Oesterreichische Landwirtschafts-Ges., drying liquid material; apparatus for drying atomised material, (P.), B., 288.
- Österreichische Siemens-Schuckert-Werke, electric insulators, (P.), B., 339.
- Östling, *G. J.*, valuation of valerian root and valerian extract, B., 506.
- Oettingen, *W. F. von*, Ishikawa, *Y.*, and Sollmann, *T.*, preparation of dibismuthyl monosodium citrate, A., 1109.
- Oettingen, *W. F. von*, and Sollmann, *T.*, action of mercuric chloride and hydrogen peroxide on bile pigments, A., 586.
- Offe, *G.*, cause of the white ring on the edge of glasses melted by coal gas, B., 677.
- Offermann, *A. M.*, Offermann, *G.*, Offermann, *T.*, and Offermann, *H.*, distillation of hydrocarbons, (P.), B., 291.
- Offermann, *G.* See Offermann, *A. M.*
- Offermann, *H.* See Offermann, *A. M.*
- Offermann, *T.* See Offermann, *A. M.*
- O'Flaherty, *F.* See McLaughlin, *G. D.*
- Oftedal, *I.*, lattice constants of calcium oxide, sulphide, selenide, and telluride, A., 923.
crystal structures of the nickel arsenide type, A., 924.
- Ogata, *T.*, cyanino dyestuffs. I. Synthesis of pinacyanol. II. Synthesis of pinacyanol using trioxymethylene, A., 1089.
- Ogawa, *S.*, application of the Perkin reaction to phenolic aldehydes, A., 359, 767*.
improved micro-Dumas determination of nitrogen, A., 1160.
micro-method for the determination of "hydrogen number," A., 1212.
- Ogawa, *W.*, new theory of crystal detectors, A., 817.
- Ogden, *H.* See Green, *E. W.*
- Ogden, *S. A.*, combining cellulose and rubber, (P.), B., 248, 599*.
- Ogilvie, *J. P.*, determination of sulphur dioxide in sugar factory products, B., 312.
- Ogura, *M.* See Iki, *S.*
- Ohio Boxboard Co. See Gannon, *J. J.*
- Ohl, *E.* See Hagemann, *O.*
- Ohle, *H.*, ring structure of laevulose, A., 649.
- Ohle, *H.*, and Berend, *G.*, acetone compounds of the sugars and their derivatives. VIII. Monoacetone-*L*-arabinose [*L*-arabinose isopropylidene ether], A., 450.
 β -ketogluconic acid, A., 647.
- Ohlendorf, *H.* See I. G. Farbenind. A.-G.
- Ohlsson, *E.*, the two components of malt diastase, A., 277.
- Ohn, *A.*, viscosity of pectin sols, B., 91.
- Oikawa, *S.*, water purification. IV. Adsorption of neutral salts by Kambara earth, B., 205.
- Oil Products Co. See Weaver, *J. B.*
- Oiwa, *K.* See Takemura, *K.*
- Oka, *S.* See Kameyama, *N.*
- Okáč, *A.* See Dubský, *J. V.*
- Okada, *H.*, starch nitrate, B., 311.
- Okazawa, *T.* See Ikeda, *K.*
- Okell, *S. A. W.* See Wickenden, *L.*
- Okey, *R.*, and Boyden, *R. E.*, metabolism of women. III. Lipin content of blood in relation to menstrual cycle, A., 480.
- Okinaka, *C.* See Komatsu, *S.*
- Okuda, *Y.*, determination of cysteine, cystine, and their derivatives in tissues and biological fluids, A., 996.
- Okunev, *N.*, surface activity of trypan-blue at various limiting surfaces, A., 895.
- Okuri, *T.*, insulating and heat non-conducting composition containing mica, (P.), B., 607.
- Olausson & Co. Aktiebolag, electrolytic chromium, (P.), B., 491, 528*.
- Olberg, *W. E.*, and California Cyanide Co., Inc., preparing magnesium cyanide and product thereof, (P.), B., 251.
- Olberg, *W. E.* See also Poindexter, *R. W.*, jun.
- Olbrich, *L.* See Kailan, *A.*
- Oldbury Electro-Chemical Co. See Wallace, *W.*
- Oldenberg, *O.*, continuous spectrum of hydrogen, A., 177.
- Olin, *C. L.*, refrigerator condenser, (P.), B., 176.
- Olin, *H. L.*, Read, *C. D.*, and Goos, *A. W.*, rôle of metallic colloids in suppression of detonation, B., 66.
- Olin, *J. M.*, O'Neil, *A. S.*, and Western Cartridge Co., propellant powder [for shot-guns], (P.), B., 717.
- Oliphant, *M. L.*, and Burdon, *R. S.*, adsorption of gases on the surface of mercury, A., 1021.
- Oliphant, *M. L.* See also Burdon, *R. S.*
- Oliver, *E. V.*, distilling apparatus; water still, (P.), B., 462.
condenser for stills, (P.), B., 464.
water still, (P.), B., 718.
- Oliver, *J. H.* See Harman, *H. W.*
- Oliver, *T. C.* See Hechenbleikner, *I.*
- Oliver Continuous Filter Co., pulp thickeners or filters, (P.), B., 465.
[rotary valve for] pulp thickeners or filters, (P.), B., 624.
- Oliveri-Mandalà, *E.*, syntheses with azoimide and mechanism of the reactions, A., 162.
- Oliveri-Mandalà, *E.* [with Neri, *A.*], solubility effects. V. Chloral-caffeine, urotropine [hexamethylenetetramine]-antipyrine, urotropine-chloral. VI. Chemical constitution and solubility, A., 303.

- Olivier, *S. C. J.*, intermediate products in the Friedel and Crafts reactions, A., 49.
- Olivier, *S. C. J.*, and Berger, *G.*, condensation of nitrobenzyl chlorides with benzene by the Friedel and Crafts reaction, in relation to the theory of induced alternate polarities, A., 1177.
- hydrolysis of organic compounds: [effect of] hydrogen-ion concentration, A., 1181.
- Olivier, *S. C. J.* See also Berger, *G.*
- Olmstead, *L. B.* See Davis, *R. O. E.*
- Olmsted, *J. M. D.*, and Harvey, *J. M.*, respiratory exchange in frogs during muscular exercise and after injection of insulin, A., 78.
- glycogen content of frog's muscle after injection of insulin and its relation to contraction, A., 701.
- Olmsted, *J. M. D.* See also Taylor, *A. C.*
- Olsen, *A. G.*, relation of temperature to hydrogen-ion concentration of buffer solutions, A., 1028.
- Olsen, *C.*, and Linderström-Lang, *K.*, accuracy of the various methods of measuring concentration of hydrogen ions in soil, B., 566.
- Olsen, *F.*, and Aaronson, *H. A.*, treatment of cellulose, (P.), B., 580.
- Olsen, *R.* See Schmid, *G.*
- Olson, *A.* See Hillebrand, *P.*
- Olson, *H. F.* See Eldridge, *J. A.*
- Olson, *H. P.*, effects of calcium chlorido on road slab concrete, B., 655.
- Olsson, *H.*, dependence of velocity of hydrolysis of esters on constitution, A., 526.
- Olzowski, *W.*, potassium permanganate absorption, "chlorine number" and chlorination of water, B., 62.
- destruction of germs by ammonia and chlorine, B., 382.
- Omelianski, *V. L.*, and Kononov, *M.*, culture of the bacillus of retting of flax, B., 57.
- Omelianski, *V. L.*, and Kononova, *M. M.*, fermentation of pectin substances in mixed cultures, B., 711.
- Omnium des Industries Chimiques (Procédés Tocco & Landi), production of ammonia, (P.), B., 877*.
- Omnium des Industries Chimiques (Procédés Tocco & Landi), Tocco, *L.*, and Landi, *M.*, production of synthetic ammonia, (P.), B., 877*.
- O'Neil, *A. S.*, and Western Cartridge Co., bulk propellant powder, (P.), B., 204.
- manufacture of a [shot-gun] propellant powder, (P.), B., 717.
- manufacture of an explosive powder, (P.), B., 717.
- O'Neil, *A. S.* See also Olin, *J. M.*
- O'Neill, *H.*, hardness and its relation to the cold-working and machining properties of metals. I., B., 490.
- Ongkiehong, *B. L.* See Jorissen, *W. P.*
- Onnes, *H. K.*, methods and apparatus used in the cryogenic laboratory. XIX. The methyl chloride and ethylene circulations; the hydrogen liquefier and circulation; the helium liquefier and circulation, A., 301.
- Onnes, *H. K.*, and Gulik, *W. van*, melting curve of hydrogen, A., 301.
- Onnes, *H. K.* See also Dana, *L. I.*, Keesom, *W. H.*, Sizoo, *G.*, and Tuyn, *W.*
- Ono, *K.*, essence of camphor. VI. Dehydration of cyclic terpene alcohols by Japanese acid earth, A., 156.
- electrochemical oxidation of benzene homologues. V. Ethylbenzene, A., 348.
- Ono, *K.*, and Miyazaki, *S.*, essence of camphor. VIII. Catalytic action of Japanese acid clay on cineole, A., 883.
- Ono, *K.*, and Takeda, *Z.*, essence of camphor. VII. Catalytic action of Japanese acid earth on l-linalol, A., 464.
- Ono, *K.* See also Grignard, *V.*
- Onoda, *T.*, overvoltage. I. Hydrogen overvoltage, A., 24.
- overvoltage. II. Oxygen overvoltage. III. Relationship between hydrogen overvoltage and concentration and surface tension of the solution, A., 941.
- Onsager, *L.*, theory of electrolytes, A., 517.
- revision of the conductivity theory, A., 1031.
- Oosterhuis, *E.* See Holst, *G.*
- Oparin, *A.*, oxidative processes in the living cell, A., 479.
- Oparin, *A.*, and Pospelova, *N.*, enzyme content of resting wheat grains, A., 1226.
- Oparina, *M. P.* See Tschitschibabin, *A. E.*
- Open Hearth Combustion Co. See Danforth, *G. L., jun.*
- Opladen, *M.*, variation of the refractive indices of gases with pressure from 1 to 10 atm., A., 498.
- Oppé, *A.*, mixtures of alkali hypochlorite and alkali chlorido in solid form, (P.), B., 42.
- Oppenheim, *R.*, and Société Anonyme le Carbone, positive electrode for electric batteries, (P.), B., 634*.
- Oppenheimer, *C.*, existence of "disaggregating" enzymes, A., 74.
- Oppenheimer, *F.* See Lorenz, *R.*
- Oppenheimer, *J. R.*, quantum theory and intensity distribution in continuous spectra, A., 83.
- quantum theory of continuous spectra, A., 291.
- quantum mechanics and direction-degeneration, A., 607.
- scattering of α -particles, A., 710.
- Orange Crush Co. See Bost, *W. D.*
- Orcel, *M. J.*, microscopical examination of metallic minerals, B., 15.
- Orékhov, *A.*, and Tiffeneau, *M.*, action of organo-magnesium compounds on oximino-ketones; synthesis of some oximino-alcohols, A., 872.
- semipinacolic and hydrobenzoinic transpositions in the alkylhydrobenzoin series; alkylhydrobenzoins with branched chains. II. The cyclohexano chain, A., 1076.
- Orékhov, *A.* See also Tiffeneau, *M.*
- Oreshkin, *S. I.*, obtaining titanium tetrachloride from titanium carbide, B., 652.
- Oreta, *A. T.*, and West, *A. P.*, salts of α -linoleic acid tetrabromide [θ - λ -tetrabromostearic acid], A., 959.
- Orkla Grube-Aktiebolag, treatment of zinc chloride-bearing solutions, (P.), B., 555.
- Orloff, *E. T.*, dyeing wool and silk with azo-dyes produced on the fibre, B., 775.
- Orlov, *E. I.*, nitration of xylene with dilute nitric acid in presence of mercury, A., 1060*.
- preparation of crystalline xylenesulphonic acids and their technical importance, A., 1178.
- Orlov, *E. I.*, and Catchourine, *M.*, preparing blue colours of the hydron series, B., 578.
- Orlov, *N.*, pyrogenic dissociation of phenanthrene in the presence of hydrogen under pressure, A., 1060.
- Orlov, *N.* See also Ipatiev, *V. N.*
- Ormandy, *W. R.*, and Craven, *E. C.*, Moore ignition meter, B., 98.
- determination of benzene in alcohol solution, B., 100.
- action of sulphuric acid on unsaturated and aromatic hydrocarbons, B., 739.
- Ormandy, *W. R.*, Craven, *E. C.*, Heilbron, *I. M.*, and Channon, *H. J.*, origin of petroleum: berginisation of fish-liver oils and other materials, B., 692.
- Ormont, *B.*, formation of mercuric cobaltothiocyanate ($\text{Hg}[\text{Co}(\text{CNS})_2]$) in presence of nitric acid as a qualitative test for mercury, A., 324.
- iometric determination of arsenic acid, A., 331.
- reactions and complex compounds of thioxyan acid, A., 531.
- Ormont, *B.*, and Bernard Ormont Associates, Inc., production of gasoline and other hydrocarbons, (P.), B., 163.
- Orn, *R. J. D.* See Barker, *W. H.*
- Orndorff, *W. R.*, Gibbs, *R. C.*, McNulty, (*Miss*) *S. A.*, and Shapiro, *G. V.*, absorption spectra of di- and tri-phenylmethane, their carbinols, and triphenylmethyl chloride, A., 763.
- absorption spectra of fuchsone, benzaurin, and aurin, A., 764.
- Orndorff, *W. R.*, and Hemmer, *A. J.*, fluorescein and some of its derivatives, A., 671.
- Orndorff, *W. R.*, and Lacey, *H. T.*, thymolbenzein, 4-hydroxy-3-isopropyl-6-methylbenzophenone, and some of their derivatives, A., 457.
- Orndorff, *W. R.*, and McNulty, (*Miss*) *S. A.*, o-cresolbenzein and some of its derivatives, A., 557.
- absorption spectra of o-cresolbenzein, A., 773.
- Orndorff, *W. R.*, Tabern, *D. L.*, and Dennis, *L. M.*, germanium. XVIII. Further organic compounds of germanium, A., 1211.
- Orndorff, *W. R.*, and Wang, *C.*, pyrogallolbenzein and some of its derivatives, A., 671.
- Ornstein, *G.*, dissolving liquid chlorine, (P.), B., 440.
- Ornstein, *L. S.*, and Bouwman, *H. P.*, intensities in the helium spectrum produced by a condensed discharge, A., 801.
- Ornstein, *L. S.*, and Burger, *H. C.*, singlet and triplet systems with their intercombinations forming one unit, A., 81.
- Ornstein, *L. S.*, Coelingh, (*Fr.*) *M.*, and Eymers, (*Fr.*) *J. G.*, intensity ratio for doublets with large frequency differences, A., 999.
- Ornstein, *L. S.*, and Minnaert, *M.*, intensity distribution in spectrum lines, and its application to photometric measurements, A., 705.

- Orqnalín-Ges.m.b.H. Nürnberg, Sitz Jena, glazing ceramic bodies, (P.), B., 189.
- Orr, A. P. See Marshall, S. M.
- Orr, M. D. See Barnour, A. D.
- Orr, W. B. See Graham, H.
- Ors, J. P. II., preparation of pigment dyes, (P.), B., 387.
- Ort, J. M., apparatus for determining oxidation-reduction potentials, A., 24.
- Ort, J. M., and Bollman, J. L., catalytic and specific dynamic actions of certain amino-acids, A., 450.
- Orth, F. See Stiasny, E.
- Orth, P., destruction of sugar during the evaporation of juice [in beet factories] using high temperatures, B., 234.
- determination of sugar in carbonation scums, B., 711.
- Orthmann, W., and Pringsheim, P., broadening of the mercury resonance line by the addition of foreign gases, A., 602.
- Orthmann, W. See also Nernst, W.
- Orthner, L., stereochemistry of trivalent nitrogen and heterocyclic nitrogen compounds, A., 975.
- Ortner, G., and Stetter, G., method of making H-particles audible, A., 183.
- Orton, E., jun., and Krehbiel, J. F., platinum-wound resistance furnace, B., 529.
- Orton, J. H., and Amirthalingam, C., shell-depositions in oysters, A., 788.
- Orton, K. J. P., and Bradfield, A. E., purification of acetic acid; determination of acetic anhydride in acetic acid, A., 645.
- chlorination of anilides; directing influence of the acylamido-group, A., 655.
- Orton, K. J. P., Watson, H. B., and Hughes, H. I., interaction of bromine with acetic anhydride. II., A., 1168.
- Oryng, T., reaction between arsenite and permanganate in sulphuric acid solutions, A., 742.
- colour measurement, B., 543.
- Orzelski, T. See Dzięwoński, K.
- Osann, B., determination in advance of the composition of the flue gases and the blast requirements of cupolas [in the cast-iron foundry], B., 389.
- Ōsawa, A., relation between lattice constants and densities in nickel steels, A., 95*.
- Osborne, J. L., Barsky, G., and American Cyanamid Co., preparation of substituted cyanamides, (P.), B., 172.
- Osborne, J. L. See also Buchanan, G. H.
- Osborne, T. B., Mendel, L. B., Park, E. A., and Winternitz, M. C., physiological effects of diets unusually rich in protein or inorganic salts, A., 275.
- Oschatz, F. See Brintzinger, H.
- Ose, K. See Grafe, V.
- Osgood, F. D. See Cooper, H. M.
- Osgood, T. H., soft X-ray spectra, A., 602.
- Osgood, T. H. See also Lehmann, J. F.
- Oshima, M., ice manufacture [for preserving fish], (P.), B., 27.
- Oshima, Y. See Kosaka, Y.
- Ossenova, Z. A. See Schilov, E.
- Osterberg, A. E., synthesis of α -amino- β -hydroxy- and γ -amino- β -hydroxy-valeric acids, A., 343.
- Osterberg, A. E. See also Kendall, F. C.
- Osterhout, W. J. V., bioelectrical phenomena, A., 1109.
- Ostermann, F., critical temperatures in the annealing of brass wire, B., 845.
- Ostermann, W. See Sudenburger Maschinenfabr. & Eisengieserei A.-G.
- Osterseizer, D., additive qualities of mixed crystals, A., 197.
- Osti, V. See Remy, H.
- Ostmann, W. See Krings, W.
- Ostro Products Corporation. See Ostromisslenski, I.
- Ostroga, F. M., chromium-cobalt steels, B., 77, 334.
- Ostromisslenski, I., and Naugatuck Chemical Co., manufacturing plastic compositions [artificial mother-of-pearl]; obtaining coloured, polymerised styrene and its homologues and products [artificial amber], (P.), B., 228.
- production of coloured [transparent] polymerised styrene and its homologues, (P.), B., 635.
- Ostromisslenski, I., and Ostro Products Corporation, making *m*-nitro-*p*-hydroxyphenylarsinic acid, (P.), B., 493.
- Ostwald, W., valuation of commercial motor spirits by Ostwald's index-number method, B., 402.
- Ostwald, W., and Benzol-Verband G.m.b.H., [treatment of fuel] alcohol, alcohol-containing mixtures, and similar liquids, (P.), B., 836*.
- Ostwald, Wolfgang, coagulation of weakly solvated sols by acids, A., 18.
- mechanical and electrical coagulation, A., 202.
- colloidal and molecular solubility and a peptisation rule, A., 310.
- Ostwald, Wolfgang, and Auerbach, R., viscosimetry by variation in velocity of flow, and a new viscosimeter, A., 201.
- viscosimetric investigation of cotton-yellow, A., 309.
- O'Sullivan, J. B., behaviour of the quinhydrone electrode in solutions of neutral copper sulphate, A., 208.
- Otani, B., silumin and its structure, B., 113*.
- Otis, A. N., and General Electric Co., [electric] furnace, (P.), B., 914.
- Otis, A. N. See also British Thomson-Houston Co., Ltd.
- Ott, C. N. See Pearce, J. N.
- Ott, E., preparation of 1:3:5-triazine-2:4:6-tricarboxylic chloride [and vat dyes therefrom], (P.), B., 470.
- Ott, E., and Hinden, F., effect of cooling on the naphthalene content of gas, B., 692.
- Ott, E., and Schröter, R., semi-hydrogenation of the acetylenic linking and dependence of the geometrical configuration of the ethylenic compound so formed on the rate of reaction, A., 441.
- Ott, K. See I. G. Farbenind. A.-G.
- Ott, M. See Sachs, G.
- Ottensooser, F., determination of bromine in presence of chlorine [in urine], A., 586.
- Ottensooser, R., catalytic oxidation by air of alcohols to aldehydes or ketones in presence of zinc oxide, A., 448.
- Ottenstein, B. See Gutbier, A.
- Ottmer, R. See Hilsch, R.
- Otto, C., separation of magnesium from the alkali metals, A., 126.
- urine analysis, A., 987.
- Otto, J. See Holborn, L.
- Otto, M., formation of oils from ethylene and its homologues, B., 930.
- Otto & Co., G.m.b.H., C. See Naaml. Vennoots. Silica en Ovenbouw Mij.
- Outhouse, J., Macy, I. G., Brekke, V., and Graham, A., human milk. IV. Vitamin-A and -B content of cows' milk, A., 692.
- Outhouse, J. See also Macy, I. G.
- Outkina, O. See Salkind, J. S.
- Overman, O. R., use of lime in butter making, B., 502.
- Overmyer, C. J., substitution derivatives of indigotin. II. Ethyl 2-nitro-3:4:5-trimethoxybenzoylacetate and related compounds, A., 459.
- Owe, A. W., production of vitaminised oils, (P.), B., 304.
- production of vitamin preparations, (P.), B., 339.
- Owen, A. F. See Naugatuck Chemical Co.
- Owen, B. J., controlling the temperature of heated air in drying and like operations [for crops, etc.], (P.), B., 65.
- artificial drying of crops, (P.), B., 203, 856, 919.
- dehydrating vegetable substances or products of organic character, (P.), B., 377.
- drying apparatus [for root-crops, etc.], (P.), B., 827.
- drying of root-crops, grain, etc., (P.), B., 887.
- Owen, B. J., Manés, L. F., and Dougan, J. L., beet dehydration process, B., 537.
- Owen, C. N. See Coleman, G. H.
- Owen, E. A., and Preston, G. D., atomic structure of AgMg and AuZn, A., 96.
- Owen, E. A. See also Preston, G. D.
- Owen, G. See Field, C. H.
- Owen, T. M., and Dalton, M. P., flotation apparatus, (P.), B., 449.
- Owens, C., cracking of oils, (P.), B., 274.
- Oxford, A. E., nitro-derivatives of the homopyrocatechol ethers, A., 968.
- Oxford, A. E., Perkin, W. H., jun., and Robinson, R., strychnine and brucine. VI. Catalytic hydrogenation of strychnine and some derivatives, A., 1208.
- Oxford, A. E., and Raper, H. S., synthesis of 5:6-dimethoxyindole and its 2-carboxylic acid, A., 365.
- Oxford, A. E., and Robinson, R., relative directive powers of groups of the forms RO and RR'N in aromatic substitution. VI. Nitration of *m*- and *p*-chlorobenzyl ethers of guaiacol, A., 1065.
- Ozilberger, R., copper-tin-nickel alloy, (P.), B., 560.

P.

- Paal, C., and Auerswald, C., platinum hydride hydrosol and its dehydrogenation by metallic mercury, A., 824.
- Pabodie, R. J., and Griscom-Russell Co., sub-cooling condenser, (P.), B., 671.
- Pabst Corporation. See Eldredge, E. E.
- Face, E., double salt crystals of cocaine with rare metals, A., 265.
new synthesis of mannitol, A., 539.
new derivative of Michler's ketone, A., 1184.
behaviour of acetoacetic acid in the organism, compared with that of ethyl acetoacetate and ethyl sodioacetoacetate, A., 1218.
- Pacher, F., case-hardening of steel articles, (P.), B., 726*.
- Pacher, H. See Fellenberg, T. von.
- Pacific Cast Iron Pipe & Foundry Co. See Drummond, R. P.
- Pacific Lumber Co. See Humboldt, S. E.
- Packard, E. A. See International Combustion Engineering Corporation.
- Packard, H. N., and Cutler-Hammer Manufacturing Co., determining the specific heat of fluids, (P.), B., 160.
- Packards & J. Fison (Thetford), Ltd., and Maudsley, R. T., sulphuric acid chambers, (P.), B., 521.
- Packer, J. See Rivett, A. C. D.
- Pacz, A., coating aluminium and its alloys, (P.), B., 658.
- Pacz, A., and Aluminum Co. of America, [aluminium] alloy, (P.), B., 415.
- Pacz, A., and General Electric Co., extraction of metals and their compounds from ores and impure materials, (P.), B., 195*.
[tungsten] alloy filament, (P.), B., 607.
- Padoa, M., transition compounds between salts and metallic alloys. II, A., 734.
- Padoa, M., and Vita, (Signorina) N., photochemical action of intermittent light. IV. Intermittent light of different frequency combinations, A., 528.
- Paetzold, H. See Biltz, H.
- Page, A. B. P., activation of wood charcoal by progressive oxidation in relation to bulk density and iodine adsorption, A., 842.
- Page, H. J., nature of soil acidity, B., 308.
investigations of K. K. Gedroiz on base exchange and absorption, B., 310.
- Page, H. J. See also Marshall, C. E.
- Page, R. O., and Gilman, J. A., influence of hydrogen-ion concentration and valency of added anion on plumping in tan liquors, B., 285.
- Pagenkoff, H. A., production of lamp-black, (P.), B., 67.
- Pagès, R. See Cournot, J.
- Paget, M., fat content of milk from Flemish cows, B., 827.
- Pagliarulo, M. L., dispersion and rotatory power of monoethyl aspartate, A., 610.
- Pahl, A., production of coats of lacquers, lacquer and basic oil paints, etc., (P.), B., 756.
- Pahl, H. See Pummerer, R.
- Paillard, B. See Briner, E.
- Pailly, M., mixing and agitation, B., 127.
- Paine, F. S. See Mulsow, F. W.
- Paine, H. S., and Badollet, M. S., use of the isoelectric point as guide to the neutralisation of converter liquor in starch-glucose manufacture, B., 638.
- Paine, H. S., and Balch, R. T., Clerget-invertase hydrolysis constants of sucrose and raffinose, A., 525.
hydrogen-ion concentration and the defecation of cane juice, B., 537.
- Paine, H. S., Birkner, V., and Hamilton, J., means for preventing "explosive" or bursting fermentation of chocolate-coated fondant candy, B., 345.
- Paine, H. S. See also Church, M. B.
- Paine, S. G. See Schryver, S. B.
- Paisseau, J., varnishing [patent] leather, (P.), B., 21.
- Pakshwer, A. See Scharvin, V. V.
- Pala, T. See Mikó, J. von.
- Palacios, J., crystal structure of tetrahedrite, A., 1015.
- Palazzo, F. See Fernandes, L.
- Palkin, A., suitability of charcoal from apricot kernel shells for the production of activated charcoal, B., 289.
- Palkin, A. P., systems $\text{AgNO}_3\text{-LiNO}_3$ and $\text{AgNO}_3\text{-RbNO}_3$, A., 939.
- Palkin, S., determination of cinchophen (2-phenylcinchoninic acid) and choice of indicators for its titration, B., 763.
- Palkin, S., and Watkins, H. R., stability of atropine and hyoscyamine during analysis, B., 266.
automatic devices for the extraction of powdered materials, B., 399.
- Palkin, S. See also Watkins, H. R.
- Palladin, A., and Ferdmann, D., influence of nutrition on synthesis and oxidation, A., 480.
- Pallaut, F. See Fonrobert, E.
- Palma, A. See Berlingozzi, S.
- Palmaer, W., corrosion of metals, B., 582.
- Palmer, C. S., and Edee, R. H., aliphatic-aromatic arseno-compounds. I. Aryl arseno-, tetra-arseno-, and hexa-arseno-acetic acids, A., 579.
- Palmer, C. W. See British Celanese, Ltd.
- Palmer, I. A. See Weinig, A. J.
- Palmer, L. S., and Kennedy, C., food requirements for growth of the rat. I. Growth on diet of purified nutrients, A., 1115.
- Palmer, W. G., reduction of copper oxide by gaseous reducing agents, A., 430*.
experimental test of the dipole theory of adsorption, A., 722.
- Pamart, C., carbonisation of combustibles at low temperatures, (P.), B., 468.
- Pamflov, A. V., determination of aniline, especially in dilute solutions, B., 7.
- Pamflov, A. V., and Kisseleva, V. E., electrometric titration of aniline with bromine, A., 1179.
- Pan, L. C. See Fink, C. G.
- Pan American Petroleum Co. See Black, J. C.
- Paná, C. D., effect of foreign substances on hydrolysis of ethyl acetate under the influence of hydrogen chloride, A., 525.
- Paneth, F., transmutation of hydrogen into helium, A., 606*.
- Paneth, F., Klever, E., and Peters, K., existence of triatomic hydrogen, A., 429.
- Paneth, F., Peters, K., and Günther, P., conversion of hydrogen into helium, A., 429.
- Paneth, L. See Hilpert, S.
- Panganiban, E. H., effect of acidity on the activities of the micro-organisms of the soil, B., 972.
- Pangritz, F. See Kleinmann, H.
- Panichi, U., crystal lattices. I. Molecular space and atomic number, A., 298.
- Paniekar, K. G. R. See Varma, P. S.
- Pannekoek, A., ionisation equilibrium in stellar atmospheres and in the earth's atmosphere, A., 288.
- Papafili, E. See Cernatescu, R.
- Papé, C. H., composition for making casting patterns, pattern mounts, etc., (P.), B., 142.
- Papendieck, A., catalytic hydrogenation of hæmateric acid and hæmin, A., 1099.
- Papesch, O., and Lippermayr, M., high-temperature drying of photographic layers, B., 715.
- Papeteries Navarre, making [aqueous] solutions of resins, (P.), B., 147.
- Papeteries de la Robertsau, wadding, (P.), B., 745.
- Pappoff, I. See Charrier, G.
- Paraffine Cos., Inc. See Finley, D.
- Paranjpe, G. R., and Tendulkar, H. D., carbon dioxide in a mercury interrupter, A., 747.
- Parás, E. M., blood-chemistry in leprosy. II. Alkali reserve, A., 1106.
- Paret, L. A., preparations of blood and meat juice, (P.), B., 457.
- Parfitt, E. H. See Spitzer, G.
- Paris, A. J., jun., cracking of hydrocarbons, (P.), B., 274.
- Paris-Durey, L., production of hydrocarbons resembling natural petroleum, (P.), B., 273.
- Pariselle, polarimetric and electrometric study of the alkali aluminotartrates; a double mutarotation phenomenon, A., 856.
- Pariselle, and Laude, entrainment of manganous hydrate by alumina in an ammoniacal medium, A., 636.
- Parisi, E., quadrivalent vanadium, A., 122.
- Parisi, E., and Carboncini, G., oxidation of organic matter and nitrification in sterilised soils kept for a long period in contact with oxygen, B., 262.
- Park, E. A. See Osborne, T. B.
- Parke, Davis & Co. See Dox, A. W., and Smith, T.
- Parker, A., coal tars from steamed vertical retorts, B., 36.
thermal study of the manufacture of water-gas, B., 354.
disposal of liquor effluents from gas works, B., 864.
- Parker, C. H. See Low-Temperature Carbonisation, Ltd.

- Parker, C. S., Kershaw, W., Barrett, F. L., and Bleachers' Association, Ltd., treatment of yarns or fabrics consisting of or containing artificial silk, (P.), B., 747.
- Parker, C. S. See also Kershaw, W.
- Parker, F. M., apparatus for drying granular materials, (P.), B., 95.
- Parker, F. W., soil phosphorus studies. III. Plant growth and absorption of phosphorus from culture solutions of different phosphate concentrations, B., 758.
- Parker, F. W., and Fudge, J. F., soil phosphorus studies. I. Colorimetric determination of organic and inorganic phosphorus in soil extracts and the soil solution, B., 758.
- Parker, F. W. See also Pierre, W. H.
- Parker, H. C., progress of electrometric control methods in industry, B., 634.
- Parker, H. C., and Greer, W. N., automatic hydrogen-ion control of boiler feed water, B., 62.
- Parker, H. F., fuel and method of operating internal-combustion engines with same, (P.), B., 807.
- Parker, H. J., centrifugal extractors, (P.), B., 639.
- Parker, H. O., and Mathieson Alkali Works, refining oils, (P.), B., 357, 436.
- Parker, J., purification of town gas in relation to corrosion, B., 435.
- Parker, J. See also Holmes & Co., W. C.
- Parker, J. A., blast furnace, (P.), B., 704.
- Parker, J. E., recovering float-gold and the like in suspension, (P.), B., 115.
- Parker, J. F. See Low-Temperature Carbonisation, Ltd.
- Parker, J. G., and Gilman, J. A., effect of hydron concentration of tan liquors on absorption of tannin by hide, B., 757.
- Parker, J. G., and Terrell, J. T., [determination of] insoluble [matter] in tannin solutions, B., 709.
- Parker, J. W. See Pierre, W. H.
- Parker, L. D. See Viekers, Ltd.
- Parker Rust Proof Co., production of high-acid phosphates, (P.), B., 522.
- rust-proofing iron, (P.), B., 658.
- Parker Rust Proof Co. See also Green, M.
- Parkes, A. E., detection of sulphites in foodstuffs, B., 57.
- Parkes, A. S., and Bellerby, C. W., internal secretions of the ovary. IV., A., 381.
- Parkes, D. W., removal and recovery of phenols from ammonium sulphate still effluents, B., 700.
- Parkes, D. W. See also Robinson, H. W.
- Parkhurst, C. E. See Bridge, W. G.
- Parkhurst, L. M., and Federal Gypsum Products Co., production of gypsum product, (P.), B., 367.
- Parkin, J. D. See Mills, W. H.
- Parkin, M., and Turner, W. E. S., influence of moisture on the mixing of batches for potash-lead oxide-silica glass, B., 11.
- Parkin, M. See also Firth, E. M.
- Parks, C. F. See Fellers, C. R.
- Parks, G. S., and Chaffee, C. S., properties of mixtures of acetone and isopropyl alcohol, A., 405.
- Parks, G. S., and Huffman, H. M., thermal data on organic compounds. IV. Heat capacities, entropies, and free energies of *n*-propyl alcohol, ethyl ether, and dulcitol, A., 11.
- glass as a fourth state of matter, A., 300.
- Parks, L. R., and Bartlett, P. G., effect of inorganic salts on the adsorption of inorganic acids and bases, A., 821.
- Parman, D. C. See Roark, R. C.
- Parmelee, C. L., and Sinclair Refining Co., cracking of hydrocarbon oils, (P.), B., 274.
- Parmelee, C. W., and Westman, A. E. R., effect of steam on the transverse strength of fireclay bricks, B., 702.
- Parnall, J. B., and Veiteh, W. W., mixing machinery or apparatus, (P.), B., 64.
- Parnas, J. K., ammonium salts in circulating blood, A., 369.
- Parnas, J. K., and Mozolowski, W., ammonia in muscle and its relation to function. I., A., 694.
- Parodi-Delfino, L., manufacture of nitroglycerin-nitrocellulose powders, (P.), B., 204*.
- Parow, E., Stirnus, A., and Ekhard, W., loss of nutrients in the mechanical removal of water from potatoes, B., 857.
- Parr, S. W., brief résumé of the fuel field, B., 178.
- Parr, S. W., and King, W. R., *jun.*, density of carbon dioxide, A., 818.
- Parr, S. W., and Staley, W. D., reactivity of coke, B., 672.
- Parr, S. W., and Straub, F. G., embrittlement of boiler plate, B., 447*.
- Parr, S. W. See also Li, S. H., and Urbana Coke Corporation.
- Parravano, N., and Malquori, G., decomposition pressure of cupric metaborate, A., 1155.
- Parry, V. F. See Burke, S. P.
- Parsons, (Sir) C. A., and Duncan, H. M., casting of [steel] ingots, (P.), B., 912.
- Parsons, C. E., Peacock, S., and Metal Research Corporation, producing pure iron from its ore, (P.), B., 46.
- process for producing phosphorus pentoxide, (P.), B., 75.
- Parsons, C. E., Stevenson, R., and Deppe, W. P., determination of equilibrium vaporisation end-points, (P.), B., 768.
- Parsons, C. L., nitric acid from ammonia, B., 651.
- Parsons, C. S., concentration of Canadian flake graphite ores, B., 187.
- Parsons, C. S., Godard, J. S., and Carnochan, R. K., reports of investigations: ore dressing and metallurgical laboratory, B., 282.
- Parsons, C. S. See also Timm, W. B.
- Parsons, E. B., Inskeep, W. D., and Hunt, W., production of carbon black from natural gas, (P.), B., 577.
- Parsons, L. B., and Douglas, W. F., influence of sodium chloride on the colorimetric determination of p_H , A., 329.
- Parsons, L. W., Coleman, S. P., and Standard Development Co., purification of hydrocarbons, (P.), B., 961.
- Parsons, T. R., and Parsons, W., oxidation processes in blood-serum, A., 1101.
- Parsons, W. See Parsons, T. R.
- Parsy, E. See Caste.
- Partale, W. See Arndt, F.
- Partington, J. R., Chinese alchemy, A., 129.
- relationship between Chinese and Arabic alchemy, A., 850.
- Partington, J. R. See also Chalk, L. J., Hawkins, F. S., Husain, S., and King, F. E.
- Partridge, E. P. See White, A. H.
- Parisch, F. See Baltzer, A.
- Pascaud. See Dupont.
- Paschen, F., relativistic fine structure of spectral lines, A., 389.
- Paschen, F. See also Sawyer, R. A.
- Pasiut, L. See Jackson, E. L.
- Pasquiers, J., method of drying materials, (P.), B., 719.
- Passalacqua, A., solder for aluminium and its alloys, (P.), B., 969.
- Passerini, M., carbylamines. XV. Reactions with aliphatic carbylamines, A., 149.
- action of potassium cyanide on pernitroso-derivatives, A., 670.
- carbylamines. XVI. Reactions with hydroxylamine hydrochloride, A., 868.
- Passerini, M., and Bruscoli, G., action of potassium cyanide on pernitroso-derivatives, A., 1196.
- Passerini, M., and Grulis, B., reactions with fulminic acid. I. Nitriles from naphthols and 2-methylindole, A., 149.
- Passerini, M. See also Alessandri, L.
- Passu, E., and Vargha, L. von, acyl migration during the partial hydrolysis of acylated polyphenolic aldehydes, A., 152.
- Pastureau, J., and Bader, J., action of hypochlorous acid on $\alpha\beta$ -unsaturated ketones and the corresponding tertiary alcohols, A., 544.
- Pataky, W. C. H., and Nellensteyn, F. J., manufacture of fatty acids from hydrocarbons, (P.), B., 451*.
- Patalong, H. See Sauerwald, F.
- Patart, G., industrial conversion of coal into organic products of technical use, B., 66.
- industrial transformation of bituminous coal into technical products, B., 384.
- production of liquid hydrocarbons and other organic substances from heavy organic materials, (P.), B., 645.
- regeneration of contact masses for the catalytic hydrogenation of carbon oxides, (P.), B., 805.
- synthesising and separating higher alcohols, (P.), B., 859.
- Patart, G. L. E., plants for carrying out gaseous catalytic reactions at high temperature and pressure, (P.), B., 241.
- production of alcohols from methane, (P.), B., 346.
- catalytic production of methyl alcohol and liquid hydrocarbons, (P.), B., 346, 460*.
- synthesis of the higher alcohols, (P.), B., 347.
- synthesis of the higher aliphatic alcohols, and their separation, (P.), B., 347.
- simultaneous production of methyl alcohol and liquid hydrocarbons, (P.), B., 347, 460*.
- Patent Retorts, Ltd., and Davidson, T. M., gas generators and the like, (P.), B., 625.

- Patent Retorts, Ltd. See also Davidson, *T. M.*
- Patentaktiebolaget Gröndal-Ramén, method and apparatus for charging and discharging trays used in dry distillation of bituminous materials, (P.), B., 180.
- Patent-Treuhand Gesellschaft für Elektrische Glühlampen, producing glass suited particularly for insulating purposes, (P.), B., 109.
- material introduced into electric incandescence lamps and similar glass vessels [to prevent blackening], (P.), B., 850.
- Patent-Treuhand Gesellschaft für Elektrische Glühlampen, Ewest, *H.*, and Schallreuter, *W.*, electrical lighting tube with a filling of carbon dioxide, (P.), B., 257.
- Patent-Treuhand Gesellschaft für Elektrische Glühlampen, Skaupy, *F.*, Späte, *F.*, and Nachod, *H.*, production of opaque, readily-fusible glass or enamel, (P.), B., 779.
- Patent-Treuhand Gesellschaft für Elektrische Glühlampen. See also General Electric Co.
- Paterno, *E.*, transmutation of the elements, A., 290.
- Paterson, *D.* See Wills, *L.*
- Pathé Cinéma (anc. Établ. Pathé Frères), production of films not sensitive to electrical action, (P.), B., 362.
- non-inflammable plastic masses, (P.), B., 406.
- production of plastic masses from cellulose derivatives, (P.), B., 552.
- production of benzylcellulose, (P.), B., 649.
- Pathé Cinéma (anc. Établ. Pathé Frères). See also Marette, *J.*, and Zelger, *G. E.*
- Paton, *F. J.* See Nanji, *D. R.*
- Paton, *J.* See Dowson & Mason Gas Plant Co., Ltd.
- Paton, *J. D.*, and Wood, *A.*, metallurgical furnace, (P.), B., 659.
- Paton, *R. F.*, and Sanders, *W. H.*, spectrum of beryllium, A., 1117.
- Patrick, *W. A.*, Frazer, *J. C. W.*, and Rush, *R. I.*, structural changes in amorphous materials; silica gel, A., 1138.
- Patrick, *W. A.* See also Frazer, *J. C. W.*
- Patrouilleau, *L. G.*, treatment of miller's wheat to eliminate the wild garlic it contains, (P.), B., 345*.
- Patscheke, *G.* See Freundlich, *H.*
- Patla, *A.*, D.M. index for the chemical testing of arsenobenzenes, B., 266.
- Patten, *J. C.* See Feith, *J.*
- Patterson, *A. L.*, X-ray examination of the lower ω -phenyl normal saturated fatty acids, A., 715.
- scattering of electrons from single crystals of nickel, A., 817.
- Patterson, *H. S.*, and Whytlaw-Gray, *R.*, scattering of light by the individual particles of smokes, A., 9.
- densities of particles in smokes, A., 17.
- Patterson, *H. S.* See also Nonhebel, *G.*
- Patterson, *J. W. T.*, blood-fat and exorcise, A., 899.
- Patterson, *T. S.*, thermostat and observation tubes for polarimetric work, A., 849.
- Patterson, *T. S.*, and Fulton, *J. D.*, optical superposition. VIII. *l*-Menthylamine, brucine, and strychnine salts of mucic and allomucic acid, A., 229.
- Patterson, *T. S.*, Fulton, *J. D.*, and Semple, (*Miss*) *J. M.*, optical superposition. VII. Bornyl dimethoxysuccinates, A., 249.
- Patterson, *T. S.*, and McAlpine, (*Miss*) *I. M.*, influence of solvents on the rotation of optically active compounds. XXIV. Menthyl benzenesulphonate, menthyl naphthalene- α -sulphonate, and menthyl naphthalene- β -sulphonate in various solvents, A., 295.
- decomposition products of menthyl esters of sulphonic acids, A., 364.
- Patterson, *W. H.* See Howard, *E. J.*
- Patton, *I. J.* See Waldbauer, *L. J.*
- Paty, *M. H.*, influence of age on the composition of the wood of the maritime pine, A., 1236.
- Paul, *C.*, and Schiedewitz, *H.*, differentiation of *cis*- and *trans*-ethylenic compounds by catalytic hydrogenation, A., 646.
- Paul, *J. R.*, post-mortem blood-sugar determinations, A., 373.
- Paul Elektrik G.m.b.H., permanent magnet, (P.), B., 195.
- Pauli, *W.*, albumins and acids, A., 19.
- electrodialysis of proteins, A., 1100.
- Pauli, *W.*, and Schmidt, *Ernst*, general colloid chemistry. XXII. Aluminium oxide sols, A., 1137.
- Pauli, *W.* See also Engel, *L.*
- Pauli, *W.*, jun., degenerated gases and paramagnetism, A., 288.
- quantum mechanics of magneton electrons, A., 807.
- Pauling, *C.* See Kulas, *C.*
- Pauling, *L.*, screening constants of relativistic or magnetic X-ray doublets, A., 88.
- Pauling, *L.*, influence of a magnetic field on the dielectric constant of a diatomic dipole gas, A., 188.
- electron affinity of hydrogen and the second ionisation potential of lithium, A., 287.
- theoretical prediction of physical properties of many-electron atoms and ions; mole refraction, diamagnetic susceptibility, and extension in space, A., 394.
- sizes of ions and the structure of ionic crystals, A., 399.
- Pauling, *L.* See also McMillan, *E.*
- Paulus, *M. G.*, Brewster, *O. C.*, and Standard Oil Co., [fractionation column] for distillation of hydrocarbon oils, (P.), B., 210.
- Paulus, *M. G.*, and Standard Oil Co., sweetening hydrocarbon oils, (P.), B., 548.
- Pauly, *H.*, and Feuerstein, *K.*, synthesis of coniferin, A., 649.
- Pauly, *H.*, and Strassberger, *L.*, hydroxymethylenemesityl oxide, A., 857.
- Pauthenier, *M.* See Bruhat, *G.*
- Pavlov, *G. S.*, relation between refractive index and composition of binary mixtures. I. and II., A., 927.
- Pavlov, *M. N.*, determination of sulphate in solutions of tervalent chromium, A., 1160.
- Pavlov, *P. N.*, swelling of active carbon, A., 722.
- Pavlov, *P. N.*, and Timochin, *G. G.*, adsorption of acids by hide in relation to swelling. II., B., 86.
- Pavlov, *V.*, and Brounse, *B.*, electrolytic production of copper acetate, A., 322.
- Pavlov, *V.*, and Leipunsky, *A.*, critical potentials of the vapours of mercuric halides, A., 91.
- Pavlov, *V. Z.* See Semencov, *A. P.*
- Pavlovitsch, *P.*, comparison of the tanning action of extracts and crude tanning materials, B., 53.
- influence of temperature on the leaching of oak wood, willow bark, pine bark, and badan root, B., 230.
- Paweck, *H.*, and Wenzl, *H.*, electrolytic recovery of zinc from pyrites calcination residues rich or poor in copper, B., 911.
- Pawlek, *F.* See Halla, *F.*
- Pawletta, *A.* See Meyer, *J.*
- Paxon, *F. J.* See Newbery, *G.*
- Payman, *W.*, and Shepherd, *W. C. F.*, pressure wave sent out by an explosive. II., B., 30.
- Payman, *W.*, and Wheeler, *R. V.*, law of flame speeds, A., 211, 524, 630.
- Payman, *W.* See also Maxwell, *G. B.*
- Payne, *B.*, cleaning wool, fabrics, etc., (P.), B., 70.
- Payne, *C. H.* See Hogg, *F. S.*
- Peabody, *E. H.*, and Peabody Engineering Corporation, viscometer, (P.), B., 959.
- Peabody Engineering Corporation. See Peabody, *E. H.*
- Peace, *G.*, and Carnegie, *A. L.*, treatment of jute fibres, (P.), B., 472.
- Peachey, *S. J.* See Universal Rubber Paviers (Manchester, 1923), Ltd.
- Peacock, *B. L. de G.* See Peacock, *J. C.*
- Peacock, *D. H.*, velocity of reaction and energy of activation of halogen compounds, A., 426.
- Peacock, *J. C.*, and Peacock, *B. L. de G.*, tannin of *Heuchera Americana*, Linn., B., 790.
- Peacock, *P. R.*, action of light on cod-liver oil, A., 595.
- Peacock, *S.* See Parsons, *C. E.*
- Peakes, *G. L.*, and Bakelite Corporation, moulded phenolic [insulating] compositions, (P.), B., 17.
- Peano, *E.*, determination of non-protein nitrogen in human serum with special reference to the nitrogen of urea and of the so-called ureic substances, A., 585.
- Pearce, *J. N.*, and Hicks, *M. M.*, sensitive electrical precision apparatus for the determination of the b.p. elevation, A., 16.
- Pearce, *J. N.*, and Ott, *C. N.*, mechanism of the catalytic decomposition of esters by nickel, A., 215.
- Pearce, *J. N.*, and Snow, *R. D.*, dynamic method for measuring vapour pressures, A., 302.
- Pearce, *W. T.*, Carlson, *R.*, and Rydstrom, *C. L.*, esters of Congo and Manila resins, B., 228.
- Pearson, *C. E.*, growth of commercial grey cast iron, B., 485.
- Pearson, *H.* See Kent, *N. A.*
- Pearson, *L. K.*, and Raper, *H. S.*, influence of temperature on the nature of the fat formed by living organisms, A., 906.
- Pease, *C. S.* See Smith, *A. W.*
- Pease, *E. L.*, treatment of [fuel] gases with liquids, (P.), B., 644.
- washing apparatus involving the intermixing of gases and liquid, (P.), B., 897.

- Pease, E. L., and Tyrer, D., manufacture of fertilisers, (P.), B., 122*.
- Pease, F. F., and Pease, F. F., Inc., air-cleaning apparatus, (P.), B., 383.
- Pease, F. F., Inc. See Pease, F. F.
- Pease, R. N., and Griffin, C. W., attempts to activate copper for catalytic hydrogenation by oxidation and reduction, A., 215.
- catalytic combination of ethylene and hydrogen in presence of metallic copper. IV. Kinetics at 100° and 200°, temperature coefficient between 0° and 220°, and summary, A., 1151.
- Peat, S. See Haworth, W. N.
- Pechhold, R., investigation of aqueous solutions of electrolytes by Fürth's ellipsoid method, A., 919.
- Pechkranz, R., electrolyser diaphragms of the filter-press type, (P.), B., 914.
- Peck, F. H., manufacture of nutritional beverages and food products, (P.), B., 890.
- Peck, S. S., strainer for sugar juices, (P.), B., 264*.
- Peezalski, T., action of salts on metals, A., 634.
- theory of sub-electrons, A., 710.
- Peczenik, O., proteases of urine. II. Proteolytic action of urine in protracted starvation and with experimentally increased protein catabolism, A., 1105.
- Peddle, W., Weber's theory of molecular magnetism, and the internal field, A., 806.
- Pedersen, A. Z., manufacture of metal sheets by electrodeposition, (P.), B., 81.
- Pedersen, A. Z. See also Pyrene Co., Ltd.
- Pedersen, F. I., furnace, (P.), B., 431.
- Pedersen, H., and Aluminum Co. of America, manufacture of aluminium hydroxide, (P.), B., 580.
- Pedersen, K. J., velocity of decomposition of nitroacetic acid in aqueous solution, A., 835.
- Peel, A. A. F., chemical constitution of gallstones and bile in relation to cholelithiasis, A., 789.
- Peel, J. B., Robinson, P. L., and Smith, H. C., influence of insoluble materials on the physical properties of liquids, A., 1019.
- Peggau, A. See Gehring, A.
- Pehrson, A. P. See Prentice, J.
- Peirce, F. T., some problems of textile testing, B., 934.
- Peirce, W. McG. See New Jersey Zinc Co.
- Peiser, E., structure of starch. I. and II., A., 753.
- Peiser, M. See Günther, P., and Müller, Franz.
- Peitzsch, W. See Borsche, W.
- Pellerin, A., manufacture of a cellulose product having the appearance of wool, (P.), B., 362.
- Pellini, J., electric cell with constant intensity, (P.), B., 338.
- Pellizzari, G., action of cyanogen halides on phenylhydrazine. X. Derivatives of oxadiazole, A., 163.
- Pells, E. G. See Bowen, E. J.
- Pelzer, H., existence of solid nitrogen in the earth's atmosphere, A., 801.
- Pelzer, H. L. See Herthel, E. C.
- Pemberton, R. See Cajori, F. A.
- Penau, H., and Blanchard, L., chemistry of insulin, A., 175.
- Penecke, W., and Bensa, F., manufacturing [perylene] dyes, (P.), B., 246.
- Penfold, A. R., essential oils from some cultivated eucalypts. I., B., 28.
- essential oils of *Leptospermum lanigerum* (Smith). I., B., 28.
- essential oils of *Zieria macrophylla* (Bonpland) and the presence of a new cyclic ketone, B., 28.
- tung oil from Australian-grown trees of *Aleurites Fordii* (Hemsley), B., 451.
- Australian synthetic menthol, B., 457.
- essential oils of *Eriostemon Cozii* (Mueller) and *Phebalium dentatum* (Smith), B., 458.
- Penfold, A. R., and Grant, R., germicidal values of some Australian essential oils and their pure constituents, together with those for some essential oil components and synthetic substances. IV., B., 458.
- Penfold, A. R., and Morrison, F. R., occurrence of a number of varieties of *Eucalyptus dives* as determined by chemical analyses of the essential oils, B., 858.
- Penick & Ford, Ltd., Inc., manufacture of starch, (P.), B., 888.
- Pennati, V. See Vascellari, G.
- Pennndorf, O. See Sudendorf, T.
- Penniman, W. B. D., and Shackelford, E. J., method of decarboxonising ferrochrome, (P.), B., 256*.
- manufacture of iron-chromium alloys, (P.), B., 338*.
- Penniman, W. B. D. See also Shackelford, E. J.
- Penning, F. M., ionisation by electrons in a homogeneous electric field, A., 85.
- measurements of the P.D. between the positive strata [in a discharge tube] of argon and neon, A., 389.
- ionisation probability in collisions between electrons and atoms, A., 1002.
- Pennington, M. E., and Davis, A. B., manufacture of strawboard, (P.), B., 406, 873*.
- Pennsylvania Crusher Co., screening apparatus for coal breakers or crushers, (P.), B., 577.
- Pennycuik, S. W., Whetham's law and the law of mass action, and their application to the coagulation of colloidal platinum, A., 824.
- constitution of colloidal platinum, A., 1137.
- Pennycuik, S. W., and Best, R. J., electrolytic preparation of calomel for use in the calomel electrode, A., 35.
- Péntchev, N. P., rare gases of some thermal springs of Bulgaria, A., 955.
- Pentelow, F. T. K. See Butcher, R. W.
- Pepper, D., battery electrode, (P.), B., 48.
- Pérard, A., meteorological researches on some rays of neon and helium, A., 285.
- radiations of mercury, krypton, and xenon from the point of view of their meteorological applications, A., 390.
- Pereival, G. H. See Stewart, C. P.
- Percy, E. N. See Yard, W. S.
- Percy, W. W., and Harris, F. W., manufacture of sponge iron from its oxide ores, (P.), B., 941.
- Perea, A. See Eggiman, A.
- Pereira, H. See Compagnie Nationale de Matières Colorantes et Manuf. Prod. Chim. du Nord Réunion, Établ. Kuhlmann.
- Perelis, W. J., treatment of mineral oils by heat to obtain lower-boiling oils, (P.), B., 548.
- Perger, H., lactacidogen in heart-muscle, A., 168.
- Perger, H. See also Embden, G.
- Perietzeanu, D. I., determination of sodium, A., 1046.
- Perietzeanu, D. I. See also Bertrand, G.
- Perkin, A. G. See Atree, G. F., Cross, E. J., and Macmaster, A.
- Perkin, F. S., blood bilirubin; determination and clinical significance, A., 987.
- Perkin, W. H., jun., Fyfe, A. W., Mendoza, M., and British Dyestuffs Corporation, Ltd., manufacture of anthraquinone derivatives, (P.), B., 743*.
- Perkin, W. H., jun., Rây, J. N., and Robinson, R., synthesis of brazillin and hæmatoxylin and their derivatives. II. Synthesis of deoxytrimethylbrazilone and of isobrazilein ferrichloride trimethyl ether, A., 1084.
- Perkin, W. H., jun., and Trikojus, V. M., synthesis of derivatives of methylenedioxybenzene, A., 56.
- synthesis of safrole and o-safrole, A., 871.
- Perkin, W. H., jun., See also Chakravarti, S. N., Clemo, G. R., Gulland, J. M., Haworth, R. D., Manske, R. H. F., and Oxford, A. E.
- Perkins, G. A., and Cruz, A. O., compounds similar to chaulmoogric acid. I., A., 359.
- compounds similar to chaulmoogric acid. II. *dl*-Chaulmoogric acid, A., 541.
- Perkins, G. A., Cruz, A. O., and Reyes, M. O., chaulmoogric-group oils. II. Refining and isolation of hydnocarpic acid, B., 754.
- Perkins, M. E. See Buell, M. V.
- Perl, J. See Smith, A. D.
- Perla, D., inhibitive reaction of tuberculosis serum; nature of the inhibitive substance, A., 588.
- Perlzweig, W. A. See Michaelis, L.
- Perman, E. P. See Downes, H. I., and Harrison, W. R.
- Permutit Co. See Kriegsheim, H.
- Pernot, (Mlle.) M. See Tournoux, C.
- Pérot, E., cementation of soft steel by cyanogen and cyanamide, B., 45.
- gaseous cementations; cementation by cyanogen. II., B., 334.
- Pérot, E. See also Cournot, J.
- Perquin, J. N. J., apparatus for gas analysis, B., 591.
- Perquin, J. N. J. See also Waterman, H. I.
- Perrakis, N., specific heats of a highly cooled, non-condensed phase, A., 101.
- constant paramagnetism of quinquivalent vanadium, A., 288.
- relation between ionisation potential and certain physico-chemical properties, A., 391.

- Perrakis, N., uncondensed systems at low temperatures, A., 403.
magnetic properties of vanadyl chloride and sulphate, and the atomic moment of vanadium, A., 717.
magnetic study of vanadium tetroxide and trioxide; measurement of the atomic moments of quadri- and ter-valent vanadium, A., 805.
- Perreau, (Mlle.) G. See Boutaric, A.
- Perrett, I. G., and Simpson, A. J., filtering apparatus, (P.), B., 1.
- Perrin, F., polarisation of fluorescence light; mean period of activated molecules, A., 187.
induced deactivation of molecules and the theory of anti-oxygenic compounds, A., 609.
- Perrin, F. See also Lumière, A.
- Perrin, J., fluorescence and molecular induction by resonance, A., 609.
valency and additive compounds, A., 1009.
- Perrin, J., and Choucrout, (Mlle.), molecular induction in activation by shock, A., 527.
- Perrot, B. See Kehrman, F.
- Perrott, G. St. J., and Gawthrop, D. B., photographic measurement of rate of detonation of explosives, B., 204.
propagation of detonation across an air-gap between two cartridges of explosive, B., 350.
apparatus for studying the ignition process of inflammable gas-air mixtures by explosives, B., 958.
- Perrott, G. St. J. See also Jones, G. W.
- Perry, C. E. See Evershed & Vignoles, Ltd.
- Perry, J. H., adsorption of vapours by ferric hydroxide gel, A., 721.
- Perry, M. C. See Thalheimer, W.
- Persch, J. P., and Persch, M. E., apparatus for treating hydrocarbon oils, (P.), B., 100*.
- Persch, M. E. See Persch, J. P.
- Pershke, W. K., partition coefficients and solubility, A., 304.
- Pertsoff, V., effect of temperature on some of the properties of caseinogen, A., 895.
effect of rennin on caseinogen. I. Solubility of casein in sodium hydroxide, A., 895.
- Pertsoff, V. See also Galtsoff, P. S.
- Perucca, E., surface tension of crystal surfaces, A., 300.
- Pervier, W. A. See Bridge, W. G.
- Peskett, G. L., growth of yeast. III. Influence of volume of medium employed, A., 278.
growth of yeast. IV. Nephelometric method of counting yeast suspensions, A., 699.
synthesis of antineuritic vitamin by yeast, A., 1224.
- Peskov, N. P., and Sokolov, V. I., instability and the charge of colloidal particles, A., 623.
- Pester, C. F., treatment of emulsions of hydrocarbon oils and water, (P.), B., 403.
- Peter, W. See Borsche, W.
- Peterit, O., fireproofing composition, (P.), B., 190.
- Peterhauser, F., and Durand & Huguenin S. A., production of fast dyeings, (P.), B., 874*.
- Peters, D., determination of water in mixtures of benzene and alcohol, B., 858.
- Peters, F. See Wolman, K. H.
- Peters, H. H., and Phelps, E. F., colour in the sugar industry. I. Colour nomenclature. II. Colorimetric clarification of turbid sugar solutions, B., 710.
- Peters, J. P., Bulger, H. A., and Eisenman, A. J., total acid-base equilibrium of plasma in health and disease. VIII. Hydrogen carbonate and chloride in the serum of patients with heart failure. IX. High serum hydrogen carbonate in heart failure; asphyctic anoxæmia, A., 587.
- Peters, J. P. See also Wakeman, A. M.
- Peters, K. See Paneth, F.
- Peters, M. F., and Klein, E. H., low-pressure value, A., 954.
- Peters, M. F. See also Fairchild, C. O.
- Peters, R. A. See Kinnersley, H. W.
- Petersen, A. H., and Kelly-Springfield Tire Co., rubber-latex coagulum, (P.), B., 229.
- Petersen, A. O. H., and Naaml. Vennoots. Nederlandsche Installatie Maatschappij Therna, condensing apparatus, (P.), B., 353*.
- Petersen, H., manufacture of sulphuric acid, (P.), B., 521.
- Petersen, M., persistent lines of hafnium, A., 285.
- Petersen, W. E., adulteration of sulphuric acid to increase Babcock test reading [of milk], B., 954.
- Petersen, W. H. See Wilson, P. W.
- Petersohn, E., catalase effect in caraway seeds as an indication of their germinating power, B., 22.
- Peterson, C. B. See Peterson, W. H.
- Peterson, C. E. See Bray, M. W., and Schafer, E. R.
- Peterson, C. F., and General Electric Co., process of making moulded articles, (P.), B., 260*.
- Peterson, C. F. See also Barringer, L. E., and British Thomson-Houston Co.
- Peterson, E. E. See Buchanan, J. H.
- Peterson, V. L., and West, E. S., volumetric determination of hydroxyl groups in organic compounds, A., 1100.
- Peterson, W. H., Fred, E. B., and Viljoen, J. A., variations in the chemical composition of cabbage and sauerkraut, B., 890.
- Peterson, W. H., and Peterson, C. B., water-soluble content of calcium and phosphorus in cabbage, A., 385.
- Peterson, W. H. See also Elvehjem, C. A., Hastings, E. G., Lindow, C. W., and Marten, E. A.
- Petin, N. N., and Golombick, M. P., composition and properties of the products of hydrolysis of ferric chloride, A., 742.
- Petit, F., action of organo-magnesium compounds on nitriles: γ -aminonitriles, A., 773.
- Petit, P., and Richard, saccharification of dextrins, A., 860.
- Petit-Devauelle, L., extraction of beryllia from minerals, (P.), B., 330.
- Petrashenij, W. J., colour reaction of magnesium, A., 847.
- Petree, C. G., and Petree & Dorr Engineers, Inc., recovering sugar content in cane juices, (P.), B., 538.
- Petree & Dorr Engineers, Inc. See Petree, C. G.
- Petrenko, G. I., polymorphism of zinc, A., 615.
transitions of silver-zinc alloys in the crystalline state, A., 938.
- Petrenko, S. N., relationships between the Rockwell and Brinell numbers, B., 582.
- Petrenko, T. V. See Fedotéev, P. P.
- Petrenko-Kritschenko, P., law of periodicity. II. Optical properties of unsaturated compounds, A., 713.
- Petrenko-Kritschenko, P., Bogatsky, V., and Loubman, N., velocities of esterification, A., 116.
- Petri, J., urea content of camel's urine, A., 692.
- Petrie, F. B., and Petrie & McNaught, Ltd., wool-washing machines, (P.), B., 248.
- Petrie & McNaught, Ltd. See Petrie, F. B.
- Petrikal, A., luminescence of quinine sulphate, A., 497.
- Petrik, K., dehydration of alcohol [for motor spirit], B., 465.
- Pétrole Synthétique Société Anonyme, and Folliet, A., converting methane gas into hydrocarbons of higher carbon content, (P.), B., 100, 548.
producing a refractory coating on metallic surfaces, (P.), B., 970.
- Petroleum Chemical Corporation, and Davis, H. S., preparation of alcohols from olefine-bearing gases, (P.), B., 900.
- Petroleum Chemical Corporation, Davis, H. S., and Murray, W. J., preparation and treatment of olefines, (P.), B., 403.
- Petroleum Chemical Corporation, and Reiman, C. K., composite motor spirit, (P.), B., 835.
- Petroleum Chemical Corporation, and Stevenson, E. P., cracking of petroleum oils and carburetting of water-gas, (P.), B., 645.
- Petroleum Hydrogenation Co. of America, Inc. See Northrup, V. W.
- Petroleum Rectifying Co. of California. See Eddy, H. C., and Harris, F. W.
- Petrov, A. See Ipatiev, V. N.
- Petrov, G., production of sulpho-aromatic fatty acids, (P.), B., 348.
production of oil-varnish substitutes, (P.), B., 452.
decomposing emulsions in the splitting of fats and oils, and recovering the splitting agent, (P.), B., 755.
- Petrov, G., and Shestakov, P., obtaining sulpho-aromatic fatty acids, (P.), B., 829*.
treatment [softening] of hard water, (P.), B., 926.
- Petrova, M. A. See Pigulevski, G. W.
- Petrovici, (Mlle.) O. See Austerweil, G.
- Pettersson, H., disintegration of carbon by α -particles, A., 494.
- Pettersson, H. See also Kirseh, G.
- Pettit, R. M. See Colloidal Products Co.
- Petzold, G. See I. G. Farbenind. A.-G.
- Pevsner, (Mlle.) S. M. See Schilov, N. A.
- Pew, A. E., jun., Thomas, H., and Sun Oil Co., apparatus for completely separating gasoline from mineral oil, (P.), B., 931.
- Peyer, E. See Ruggli, P.
- Pfaff, See Densch.
- Pfaff, A., production of low-temperature tar from bituminous shale, (P.), B., 291.

- Pfanhauser, W. A. F., [cooling device for use when] coating articles with metal in vacuum by electrode dispersion, (P.), B., 754.
- Pfanhauser, W. A. F., and Langbein-Pfanhauser-Werke A.-G., galvanic bath, (P.), B., 492.
- Pfankuch, E. See Houben, J.
- Pfau, A. S., new constituent of lavender oil; composition of castoreum, B., 571.
- Pfau, E. See Danckworth, P. W.
- Pfaudler Co., Nichols, E. P., and Todd, U. G., heat exchangers, (P.), B., 927.
- Pfaudler Co. See also Todd, U. G.
- Pfeifer, J. See Kohn, M.
- Pfeifer & Schwandner G.m.b.H., production of starch forming a mucilage in cold water, (P.), B., 199.
- Pfeiffer, C. See Grueber Maschinenbau A.-G., C. von, and Köppen, W.
- Pfeiffer, H. See Ganssen, R.
- Pfeiffer, P., co-ordination theory in organic and physiological chemistry, A., 296.
- Pfeiffer, P. [with Oberlin, H., and Segall, B.], naphthazarin, A., 247.
- Pfeiffer, P., Angern, O., and Wang, L., molecular compounds of amino-acids and diketopiperazines. II, A., 676.
- Pfeiffer, P., Golther, S., and Angern, O., theory of colour lakes; optically active, internally complex salt of pæronol, A., 362.
- Pfeiffer, P., and Oberlin, H., brazilin and hamatoxylin question. V. Synthesis of a trimethylanhydrobrazilin, A., 1198.
- Pfeil, L. B., deformation of iron, with particular reference to single crystals, B., 486.
- effect of cold-work on the structure and hardness of single iron crystals and the changes produced by subsequent annealing, B., 845.
- Pfeiler, R. See Löw, A.
- Pfifferling, P. See Dworzak, R.
- Pfiffner, E. See Dubilier Condenser Co., Ltd.
- Pfister, K. H. T., and Rohm & Haas Co., production of a neutral resin from gum acroroides, (P.), B., 148.
- Pfaum, W. See Manchot, W.
- Pfeiderer, W., anomalous optical rotation-dispersion and magnetic rotation-dispersion of substances of which the optical dispersion of rotation is anomalous, A., 8.
- Pflug, H., determination of water in oils, B., 834.
- Pflug, H. See also Wolman, K. H.
- Pfützer, G. See I. G. Farbenind. A.-G.
- Pfund, A. H., infra-red spectrometer of large aperture, A., 495.
- Pfund, A. H. See also Stutz, G. F. A.
- Pfundt, O. See Jander, G.
- Pfyl, B., and Schmitt, O., determination of nicotine in tobacco and tobacco smoke, B., 955.
- Phelps, E. F. See Peters, H. H.
- Phelps, F. P. See Bates, F.
- Phelps, S. M., shrinkage of diaspore clays. I, B., 556.
- Philibert, A., and Risler, J., action of neon light on bacteria, A., 281.
- Philibert, M., apparent duplication of the optic axis of calcite with Federov's plate, A., 10, 99.
- Philipp, E. See Darapsky, A.
- Philippi, E., and Morsch, K., preparation of methylguanidine according to Werner and Bell, A., 1175.
- Philippi, E., and Seka, R. [with Sedlatschek, H., Schmidt, O., and Sekora, K.], oxidation of charcoal with sulphuric acid, A., 944.
- Philippi, E. See also Erben, F. X.
- Philippis, H. See Mayer, Fritz.
- Phillips, A., and Thelin, L. W., X-ray study of the β -transformation in copper-zinc alloys, A., 1013.
- Phillips, E. B., Stafford, J. G., and Sinclair Refining Co., refining of hydrocarbon oils, (P.), B., 962.
- Phillips, H., mechanism of the insulin effect on carbohydrate metabolism, A., 1115.
- Phillips, Henry. See Clarke, S. G.
- Phillips, H. W. L. See Gwyer, A. G. C.
- Phillips, M., preparation of 1:4-dichloroanthraquinone from phthalic anhydride and *p*-dichlorobenzene, A., 155.
- preparation of alizarin from phthalic anhydride and *o*-dichlorobenzene, A., 362.
- lignin. I. Lignin from corn [maize] cobs, A., 961.
- formation of 1:2- and 2:3-dichloroanthraquinones from *o*-dichlorobenzene, A., 1079.
- Phillips, M., and Cohen, B., preparation of vital neutral-red, A., 895.
- Phillips, M., and Goss, M. J., new paint and varnish remover, B., 228.
- Phillips, M. A., crotonic acid series. I. Nitrogen derivatives of crotonic acid, A., 132.
- Phillips, W. M. See General Motors Corporation.
- Phillis, E. See Browning, C. H.
- Phipps, P. See Smith, M.
- Phipps, T. E., and Taylor, J. R., magnetic moment of the hydrogen atom, A., 288.
- Phosphorus-Hydrogen Co. See Liljenroth, F. G.
- Phragmén, G. See Westgren, A.
- Piazza, G., relation between the excretion of urinary phosphorus and the consumption of carbohydrates, A., 374.
- behaviour of glycemia and of phosphorus content of the blood during muscular work, A., 374.
- variations in the phosphorus content of muscular tissue during insulin hypoglycemia, A., 380.
- Picard, H. F. K. See Sulman, H. L.
- Picard, M. See Marcusson, J.
- Picard, P., presence of polygalitin in the leafy stems of *Polygala vulgaris*, A., 995.
- Piccard, J., diphenyl derivatives of ammonia, *p*-phenylene-diamine, and benzidine; meri-quinonic salts, A., 50.
- Piccardi, G., atomic number and atomic structure, A., 394.
- isotopes and atomic structure, A., 493.
- electron affinity of some stable molecules at high temperatures, A., 811.
- possible mechanism of atomic disintegration, A., 1002.
- Piccardi, G. See also Rolla, L.
- Pichard, C., and Pichard, E., manufacture of felt, (P.), B., 329*.
- Pichard, E. See Pichard, C.
- Pichler, H. See Fischer, F.
- Pichlmayr, H. See Hess, K.
- Pick, M., manufacture of blue-glazed ceramic articles with the appearance of old Egyptian ware, (P.), B., 411.
- Pickard, J. A. See Garland, C. S., and Hele-Shaw, H. S.
- Pickard, R. H., Lloyd, D. J., and Caunce, A. E., stuffing of chrome-tanned heavy leather, (P.), B., 758*.
- Pickering, E. C. See Brown, A. C.
- Pickering, S. F., critical constants of various gases, A., 194.
- Pickert, W. See Lindemann, H.
- Pickett, C. F. See Simmons, J. P., and Taylor, H. A.
- Pickworth, F. A., basal metabolism as determined by the respiratory exchange, A., 588.
- Picon, M., action of high temperatures on some metallic sulphides, A., 220, 328.
- Pictet, A., and Pictet, R., volatile alkaloid of pepper, A., 1208.
- Pictet, A., and Salzmänn, R., complete depolymerisation of starch, A., 450.
- Pictet, A., and Vogel, H., synthetic melibiose, A., 450.
- synthesis of maltose, A., 752, 1057*.
- synthesis of lactose, A., 960.
- Pictet, R. See Pictet, A.
- Pien, J., influence of calcium cyanamide on the reaction of the soil, B., 663.
- Pien, J. See also Brioux, C.
- Pieper, E. See Elöd, E.
- Pieper, H. See Rheinboldt, H.
- Pieper, W., and Soellner Nachf. Reisszeugfabr. A.-G., J. B., production of a weatherproof oxide layer on electron metal, (P.), B., 913.
- Pier, M. See I. G. Farbenind. A.-G.
- Pier Process Corporation. See Murdock, W. J.
- Pierce, H. A. See Lahart, J. F.
- Pierce, H. C., and Metals Protection Corporation, chromium plating, (P.), B., 881*.
- Pierce, H. C. See also Metals Protection Corporation.
- Pierce, J. B., jun., manufacture of precipitated barium carbonate and barium sulphhydrate, (P.), B., 777.
- Pieroh, K. See I. G. Farbenind. A.-G.
- Pieroni, A., derivatives of pyridine, A., 573.
- Pierre, W. H., buffer capacity of soils and its relation to the development of soil acidity from the use of ammonium sulphate, B., 950.
- Pierre, W. H., and Parker, F. W., use of collodion sacs in obtaining clear soil extracts for the determination of the water-soluble constituents, B., 150.
- soil phosphorus studies. II. Concentration of organic and inorganic phosphorus in the soil solution and soil extracts, and availability of organic phosphorus to plants, B., 758.

- Pieters, *I. S.* See Plibrico Jointless Firebrick Co.
- Pietra, *P.*, detection and identification of reducing sugars in urine by Castellani's mycological method, A., 937.
- Pietsch, *A.*, effect of juico of potato-tubers on biological reduction of *o*-dinitrobenzene, A., 384.
- Pietsch, *E.*, and Willeke, (*Fr.*) *G.*, ionisation potential of methane, A., 712.
- Pietsch, *E.* See also Schwab, *G. M.*
- Piettre, *M.*, the specific activity of hæmolytic serum-albumin is not connected with the total protein content, A., 585.
preparation of humin substances from coal, (P.), B., 866.
- Piettre, *M.* See also Matignon, *C.*
- Pietzsch, *A.* See also Adolph, *G.*
- Pigulevski, *G. W.*, relation between the essential oils and the resins [in pine], B., 618.
- Pigulevski, *G. W.*, and Petrova, *M. A.*, oxidation of oleic acid by perbenzoic acid, A., 447.
- Pike, *E. F.* See Müller, *J. H.*
- Pike, *R. D.*, calcining and clinkering cement-forming materials, (P.), B., 77.
manufacture of oil gas, (P.), B., 900.
- Pillai, *D. S.*, effect of zinc oxide on the colouring properties of chromium, cobalt, and iron oxides, B., 410.
- Pilling, *N. B.*, and Westinghouse Electric & Manufacturing Co., resistor alloy, (P.), B., 682.
- Pilling, *N. B.* See also International Nickel Co.
- Piña de Rubies, *S.*, new lines in the arc spectrum of europium at normal pressure between 3500 and 3100 Å., A., 82.
arc spectrum of europium; measurements made at normal pressure between 3100 and 2200 I.Å., A., 178.
new lines in the arc spectrum of europium at normal pressure between 3100 and 2200 Å., A., 390.
arc spectrum of gadolinium; measurements made at normal pressure between 3100 and 2200 I.Å., A., 390.
new lines in the arc spectrum of gadolinium between 3100 and 2200 Å., A., 602.
- Piña de Rubies, *S.*, and Dorronsoro, *J.*, new lines between 3100 and 2400 Å. in the arc spectrum of manganese at normal pressure, A., 802.
new lines in the arc spectrum of manganese at normal pressure between 2300 and 2000 Å., A., 998.
- Pinck, *L. A.*, use of nitrogen tetroxide in place of nitric acid in organic nitrations, A., 1177.
- Pinck, *L. A.*, and Blair, *J. S.*, mixed aquo-ammonocarbonic acids, A., 345.
- Pincussen, *L.*, changes in the cation content of organs on exposure to light and at high altitudes, A., 482.
influencing biological reactions brought about by light, A., 482.
determination of acetoacetic acid, A., 800.
analytical investigations. VII., A., 952.
- Pincussen, *L.* [with Walter, *A.*], and Coelho, *E.*, changes of metabolism under various conditions. I. Influence of adrenaline and pilocarpine on the excretion of nitrogenous substances. II. Influence of potassium and calcium on the excretion of nitrogenous substances, A., 276.
- Pincussen, *L.*, and Konarsky, *A.*, analytical investigations. VIII. Determination of total sulphur in urine and in organs, A., 1116.
- Pincussen, *L.*, and Schimmelpfeng, *P.*, analytical investigations. VI. Determination of calcium in blood-serum, A., 585.
- Pinel, *A.*, production of objects from cellulose xanthate, (P.), B., 580.
- Pinet, *L.* See Leulier, *A.*
- Pink, *H. S.* See Haworth, *R. D.*
- Pink, *L.* See Römer, *R.*
- Pinkus, *A.*, and Belche, *E.*, determination of aluminium by cupferron, A., 639.
- Pinkus, *A.*, and Claessens, (*Mlle.*) *J.*, determination of tin by "cupferron"; separation from antimony, arsenic, lead, and zinc, A., 848.
- Pinkus, *A.*, and Jacobi, *J.*, determination of nitrogen by the Davis-Lunge method, A., 952.
- Pinkus, *A.*, and Juliard, *A.*, formation of ozone by electric discharge in presence of foreign gases, A., 741.
- Pinkus, *A.*, and Martin, *F.*, solubilities of metallic derivatives of nitrosophenylhydroxylamine. I. and II., A., 406.
- Pinkus, *A.*, and Radbill, *A.*, thermal decomposition of ozone in presence of chlorine, A., 320.
- Pinsl, *H.*, determination of silicon in pig iron and cast iron, B., 45.
effect of prolonged annealing on the phosphide eutectic [in cast iron], B., 368.
- Pinten, *P.* See Bredt, *J.*
- Pintus, *F.* See Hein, *F.*
- Piolino, *M.* See Goldstein, *H.*
- Pipereaut, *P.* See Compagnie Générale des Produits Chimiques de Louvres.
- Pirak, *H.* See Fuchs, *W.*
- Pirani, *F.*, analyses of potable spirits made from wine and from vinasse, and of raw and rectified spirit, B., 500.
- Piron, *E.*, removal of air from water, (P.), B., 158.
- Piron, *J.* See Lacore, *A.*
- Pirsch, *J.* See Faltis, *F.*
- Pisarshevski, *L.*, and Roiter, *V.*, mechanism of catalysis of hydrogen peroxide, A., 528*.
- Pisarshevski, *O.* See Zaleski, *V.*
- Pistor, *F.* See Mezger, *R.*
- Pistor, *G.* See I. G. Farbenind. A.-G.
- Pistor, *K.* See Fonrobert, *E.*
- Pitcairn, *E.* See Molony, *S. B.*
- Pitkin, *W. R.* See Smithells, *C. J.*
- Pitman, *E. C.*, and Du Pont de Nemours & Co., *E. I.*, reducing the viscosity of nitrocellulose solutions, (P.), B., 704.
- Pittarelli, *E.*, detection of purines with *p*-aminophenols, A., 979.
- Pitts, *C. R.*, ionisation by bubbling air through solutions, A., 604.
- Pittsburgh Plate Glass Co., process and apparatus for annealing sheet glass, (P.), B., 109.
manufacture of sheet glass, (P.), B., 411.
- Pittsburgh Plate Glass Co. See also Hess, *P. J.*, and Jenkins, *J. D.*
- Piutti, *A.*, [diagrammatic] representation of the elements for instruction, A., 1049.
- Piutti, *A.*, and Boggio-Lera, *E.*, transmutation of mercury into gold, A., 915.
- Piutti, *A.*, and Mazza, *F. P.*, hydroxyalkyl derivatives of vulpinic acid, A., 1072.
action of ultra-violet rays on chloropierin, A., 1166.
- Piver, *W. C.*, making arsenic acid, (P.), B., 217.
manufacture of an insecticide, (P.), B., 536.
- Pivovarsky, *E.* See Oberhoffer, *P.*, and Wüster, *A.*
- Pizzarelli, *A.*, determination of nitrogen in nitrates, B., 187.
- Plăcinteanu, *I. I.*, thermodynamic relations, A., 519.
- Planchon, *V.*, manufacture of nitrated cellulose from wood pulp, (P.), B., 798*.
- Planer, *V.*, production of a metallic coating [*e.g.*, tin] on metal wires, (P.), B., 490.
- Plank, *E.*, preservation of wood, (P.), B., 780.
- Plant, *S. G. P.* See Betts, *R. L.*, Gurney, *J.*, and Oakeshott, *S. H.*
- Plantefol, *L.* See Houget, *J.*
- Plassmann, *J.*, apparatus for the distillation of fuel, roasting ores, and like heating purposes, (P.), B., 644.
[charging device for use in the] low-temperature distillation of fuel, (P.), B., 674.
low-temperature distillation or coking of fuels, (P.), B., 740.
- Platen, *B. C. von*, Munters, *C. G.*, and Electrolux Servel Corporation, refrigeration, (P.), B., 159, 465*.
refrigerator, (P.), B., 177*.
absorption refrigerating apparatus, (P.), B., 353*.
- Platenius, *H.* See Blish, *M. J.*
- Platen-Munters Refrigerating System Aktiebolag, absorption refrigerating apparatus, (P.), B., 128.
process and apparatus for the production of cold, (P.), B., 240.
- Platen-Munters Refrigerating System Aktiebolag. See also Electrolux, Ltd.
- Plath, *G.*, separating machines, B., 176.
- Platon, *J. B.*, vitamin-A content of skimmed milk, A., 796.
- Platonov, *M. S.* See Lebedev, *S. V.*
- Platsch, *M.* See I. G. Farbenind. A.-G.
- Platt, *B. S.*, significance of gelatin for bacterial growth, A., 280.
peroxide formation by pneumococcus and its relation to bacterial oxidation-reduction reactions, A., 280.
- Platt, *B. S.*, and Wormald, *A.*, plant oxidation: nature and reactions of the substance "tyrin," A., 384.
- Platzmann, *C. R.*, influence of aluminium and zinc on cement, B., 908.
- Plausons Forschungsinst. G.m.b.H., process of tanning, (P.), B., 854.
- Plažek, *E.* See Konopnicki, *A.*
- Plésiewicz, *S.*, application of eudiometer discharges to the demonstration of the synthesis of nitric oxide and the decomposition of methane, A., 225.
- Pletsch, *C.* See Schubert, *R.*
- Plews, *W. J.* See Silica Gel Corporation.

- Plibrico Jointless Firebrick Co., and Pieters, *I. S.*, furnace settings, (P.), B., 431.
- Plichta, *J.* See Kubina, *H.*
- Plimmer, *R. H. A.*, and Lowndes, *J.*, analysis of proteins. VIII. Determination of cystine in the modified Van Slyke method, A., 269.
- changes in the amino-acids in the proteins of the hen's egg during development, A., 271.
- Plimmer, *R. H. A.*, Rosedale, *J. L.*, and Raymond, *W. H.*, nutrition. VII. Fat-soluble vitamin requirements of chickens, A., 904. nutrition. VI. Balance of food by vitamin-B, A., 905.
- Plimmer, *R. H. A.*, Rosedale, *J. L.*, Raymond, *W. H.*, and Lowndes, *J.*, nutrition. VIII. Comparative vitamin-B value of foodstuffs; cereals. I., A., 1223.
- Plochmann, *G.*, fuel briquettes, (P.), B., 66.
- Plochmann, *G.* See also Maschinenbau A.-G. vorm. Breitfeld, Daněk & Co.
- Ploetz, *G.* See Arndt, *K.*
- Plöin, *A.*, nature of mixed crystals, A., 197.
- Plotnikov, *J.*, light-distribution between two absorbing media, and the conception of intensity in photochemistry, A., 119.
- Plotnikov, *J.*, and Karschulin, *M.*, photochemical absorption of iron salts, A., 1006.
- Plotnikov, *V. A.*, electrochemical resonance, A., 20, 734*.
- Plotnikov, *V. A.*, and Bendetzký, *M. A.*, electrochemistry of solutions of aluminium bromide in nitrobenzene, A., 832.
- Plummer, *W. G.* See McLennan, *J. C.*
- Plumstead, *J. E.*, and Jessup & Moore Paper Co., utilising old paper stock, (P.), B., 474.
- Plyler, *E. K.*, isotopes of calcium, A., 1120.
- Pneumatic Conveyance & Extraction, Ltd., and Chew, *S. N.*, gas and air washing apparatus, (P.), B., 832.
- Pneumatic Conveyance & Extraction, Ltd. See also Yates, *J. A.*
- Pochin, *F. H.*, and Pochin, *H. S.*, suction and filter apparatus for removing dust from grinding and like machines, (P.), B., 896.
- Pochin, *H. S.* See Pochin, *F. H.*
- Podrouzek, *V.*, catalytic power of [animal] charcoal, B., 95.
- Podszus, *E.*, process and apparatus for obtaining powders of great fineness, (P.), B., 320*.
- Poß, *J. P.*, production of barium peroxide, (P.), B., 653.
- Pöll, *H.* See Suida, *H.*
- Poetker, *A. H.*, infra-red spectrum of hydrogen, A., 177.
- infra-red radiation of hydrogen, A., 1117.
- Pogány, *K.*, insulin and glycogen formation, A., 904.
- Poggi, *R.*, and Polverini, *A.*, determination of phosphorus or arsenic in organic substances, A., 66.
- Pogue, *R. B.*, and American Brake Shoe & Foundry Co., refractory lining, (P.), B., 483.
- Pohl, *E.* See Neutrassol Products Corporation.
- Pohl, *R.*, and Rupp, *E.*, alkali halide phosphors, A., 91.
- Pohorecka-Lelesz, *B.*, micro-volumetric determination of sulphur in biological fluids, A., 478.
- Poindexter, *F. E.*, surface tension of sodium, A., 1132.
- Poindexter, *R. W., jun.*, Dolley, *P. T.*, and California Cyanide Co., Inc., preparation of alkali metal cyanides, (P.), B., 628.
- Poindexter, *R. W., jun.*, Morgan, *H. J.*, and California Cyanide Co., Inc., manufacture of pellets [from molten materials], (P.), B., 928.
- Poindexter, *R. W., jun.*, Olberg, *W. E.*, and California Cyanide Co., Inc., preparation of cyanogen compounds [calcium cyanide], (P.), B., 907.
- Pointon, *J. E.* See Baker Perkins, Ltd.
- Pojarliëff, *G.* See Fringsheim, *H.*
- Pokorny, *J.*, application of after-chroming dyes to wool and silk, B., 474.
- Pokrovskaya, *E.* See Gurevitch, *G.*
- Pokrovski, *G. I.*, scattering and polarisation of light in disperse carbon, A., 93.
- dispersion in sulphur suspensions, A., 108.
- particles causing scattering of light in the crystalline lens of the eye, A., 308.
- intensity of spectral lines, A., 1118.
- depolarisation of light by dispersed systems, A., 1123.
- Pokrovski, *G. I.* See also Voronkov, *G. P.*
- Polack, *W. G.* See Moore, *J. W.*
- Poland, *F. F.*, and American Smelting & Refining Co., process and apparatus for electrolytic refining, (P.), B., 116.
- Poland, *F. F.* See also American Smelting & Refining Co.
- Póányi, *M.*, and Bogdandy, *S. von*, apparatus for determining the composition of copper and zinc alloys [brass], (P.), B., 784.
- Póányi, *M.* See also Bogdandy, *S. von*, and Hasche, *L.*
- Poldihütte, steel alloy, (P.), B., 448.
- "Poleo" Feuerlösch Apparate G.m.b.H., fire-extinguishing compound, (P.), B., 897.
- Polgar, *N.* See Späth, *E.*
- Poliker, *H.* See I. G. Farbenind. A.-G.
- Pollack, *H.* See Chambers, *R.*
- Pollak, *A.*, production of lactic acid from sugar-containing raw materials by means of lactic acid bacteria, (P.), B., 375*.
- Pollak, *F.*, treatment of condensation products of carbamide or its derivatives with formaldehyde, (P.), B., 452.
- manufacture of condensation products of carbamide or its derivatives and formaldehyde, (P.), B., 756.
- Pollak, *F.* See also Ripper, *K.*
- Pollak, *J.*, Deutscher, *K.*, and Krauss, (*Frl.*) *M.*, course of the Leuckart xanthate reaction [ethyl- and methyl-sulphonylbenzene-2 : 4-disulphonyl chlorides], A., 866.
- Pollak, *J.*, and Gebauer-Fülneegg, *E.* [with Litvay, *O.*], action of chlorosulphonic acid on phenols. IV., A., 354.
- Pollak, *L.*, behaviour of sugars foreign to the body under the action of insulin. II. Resorption of sugars injected intraperitoneally under the influence of insulin, A., 1115.
- Pollak, *L.*, and Springer, *W.*, detection of quebracho tannin and similar tannins in extract mixtures and in leather, B., 373.
- Pollak, *L.* See also Basch, *F.*
- Pollard, *A.*, and Robinson, *R.*, alleged nitration of *S*-methylthioguanicol; criticism, A., 146.
- Pollatschek, *O.* See Zellner, *J.*
- Poller, *K.*, arginase, A., 992.
- Poller, *K.* See also Ackermann, *D.*, and Keil, *W.*
- Pollitt, *G. P.*, development of the synthetic nitrogen industry in Great Britain, B., 652.
- Pollock, *R. T.*, and Universal Oil Products Co., converting [cracking] hydrocarbons, (P.), B., 6.
- cracking petroleum oil, (P.), B., 627.
- Polonovski, *Max*, and Polonovski, *Michel*, new transformation of tertiary heterocyclic bases into secondary dealkylated bases, A., 367.
- β -pyridyl- α -pyrrolidine (nornicotine), A., 785.
- scopinium derivative : reduction to ψ -scopine and degradation to *m*-hydroxybenzaldehyde, A., 888.
- amine-oxides of alkaloids. II., A., 1208.
- amine-oxides of alkaloids. III. Action of acid chlorides and anhydrides; preparation of nor-bases, A., 1208.
- Polonovski, *Michel*. See Polonovski, *Max*.
- Polukarov, *M. N.* See Alexeev, *D. W.*
- Polverini, *A.* See Poggi, *R.*
- Polygraphische Gesellschaft, sensitised photographic papers, (P.), B., 765.
- Polysius, *G.*, manufacture of fused cement, (P.), B., 221.
- Polysius Co., *G.*, production of compositions of matter [for lining kilns, etc.], (P.), B., 816.
- Polysius Eisengiesserei & Maschinenfabr., *G.*, fusion in a rotatory furnace, (P.), B., 225.
- drying and grinding Glauber's salt, (P.), B., 330.
- apparatus for preheating slurry, especially cement slurry, (P.), B., 333.
- Pomeranceva, *A. L.* See Isgarischev, *N. A.*
- Pomeroy, *J. N.*, treatment of zinc waste, (P.), B., 114.
- Pomeroy, *R.* See Yost, *D. M.*
- Pomeroy, *W. C.*, quantum analysis of the band spectrum of aluminium oxide (5200—4650 Å.), A., 185.
- fine structure of the 4842 Å. band of AlO, A., 1005.
- Pomeroy, *W. C.*, and Birge, *R. T.*, quantum analysis of the band spectrum of AlO (5200—4650 Å.), A., 1122.
- Pomilio, *U.*, recovery and utilisation of waste liquors in the pulp industry, B., 327.
- Pommerenke, *H.*, and Herman, *P.*, industrial utilisation of aluminium alloys, B., 604.
- Pommernelle, *H.* See Rosenthal, *F.*
- Pompeian Flooring Co. See Slosser, *A. J.*
- Pond, *T. C.*, and Johns-Manville Inc., [silica] brick-making, (P.), B., 109.
- Pond, *W. F.*, determination of phosphorus and silicon in ferro-phosphorus, B., 488.
- Ponder, *E.*, kinetics of hæmolytic systems. II. Series of Ryvosh. III. Time-dilution curves and zones of action, A., 271.
- measurement of percentage hæmolysis. II., A., 585.
- Pongratz, *A.*, perylene and its derivatives. XIII., A., 1190.

- Pongratz, A. See also Bensa, F.
 Ponndorf, W. See Knipping, H. W.
 Ponomarev, J. F., investigation of the glassy state by the method of enforced crystallisation, B., 409.
 Ponte, M., reflecting power of the carbon atom for high-frequency rays, A., 191.
 Pontoppidan, C., manufacture of Portland cement, (P.), B., 254*.
 Pontoppidan, C., and Buntzen, S., production of cement mixed with gypsum, (P.), B., 13.
 Ponzio, G., dioximes. XXXII. and XLI., A., 134, 462.
 Ponzio, G., and Avogadro, L., dioximes. XLII., A., 470.
 Ponzio, G., and De Paolini, I., dioximes. XXXIII., A., 135.
 Ponzio, G., and Sismondi, R., dioximes. XXXIV., A., 135.
 Pool, C. J. See Bywaters, H. W.
 Poole, A. H. R. S., removal of stains from fabrics, (P.), B., 9.
 Poole, H. G. See Davies, W.
 Poole, J. H. J., radioactivity of the earth's basaltic magma, A., 709.
 Poole, J. H. J. See also Joly, J.
 Pope, C. G., and Gowlett, F. W., direct-reading hydrogen-ion meter, A., 1049.
 Pope, (Sir) W. J., manufacture of pharmaceutical products, (P.), B., 29.
 Pope, (Sir) W. J. See also Mann, F. G.
 Popham, F. J. W. See Butler, T. H.
 Popiel, J. See Chrzyszczewska, A.
 Popov, L. I., production of dichromates from chromate ores with soda and lime, B., 580.
 Popov, P. G., heats of dissolution of acetonitrile in some organic solvents, A., 1143.
 detection of nitric acid with ferrous sulphate, A., 1160.
 Popov, P. P. See Tronov, B. V.
 Popov, V., extraction of cream of tartar, (P.), B., 459.
 Popoviciu, G. See Nitescu, I. I.
 Popp, G. See Haupt, H.
 Popp, M., determination of fat in milk by the Neusal method, B., 375.
 Popp, M., and Contzen, J., action of various phosphatic manures, B., 566.
 Popp, M., Felling, W., and Floess, R., comparative manuring trials on arable land and pastures, B., 566.
 Popper, L. See Barrenscheen, H. K.
 Poppelord, N. See Smith, W. S.
 Porlezza, C., and Donati, A., spectrographic identification of certain elements and the possibility of determination by means of the arc spectrum. I., A., 124.
 spectrographic analysis of tufa from Fiuggi, A., 129.
 spectrographic identification of certain elements and the possibility of determination by means of the arc spectrum. II. Uranium, A., 184.
 spectrographic identification of certain elements and the possibility of determination by means of the arc spectrum. III. Vanadium, A., 334.
 Porritt, B. D., Dawson, T. R., and Research Association of British Rubber & Tyre Manufacturers, preservation of goods of rubber or like substances, (P.), B., 636.
 Porritt, B. D. See also Dawson, T. R., and Gallie, G.
 Porritt, W. H., arylseleninic acids, A., 267.
 Porrvik, G., nature of paper formation, B., 838.
 Porter, A. W., Soret effect, A., 827.
 Porter, A. W., and Rao, P. A. M., law of capillary flow in the case of colloids, A., 826.
 Porter, C. W., and Wilbur, P., photochemical rearrangement of acetylchloroaminobenzene, A., 1041.
 Porter, E. E. See Weiser, H. B.
 Porteus, G., disintegrators, (P.), B., 927.
 Portevin, A., crystallisation and structure of metals and alloys, A., 923.
 Portevin, A., and Pretet, E., rate of dissolution of ultra-light magnesium alloys, B., 657.
 Portevin, A., and Sourdillon, A., deformations accompanying the thermal treatment of steel, B., 703.
 Portevin, A. See also Bauret, P., and Chevenard, P.
 Portham, R. S., and Tangential Dryers, Ltd., removal or separation from gaseous fluid of material suspended therein, (P.), B., 544.
 Portier, P. See Duval, M.
 Portillo, R., sulphates and chlorides of complex bismuthotartrates, A., 647.
 Portland-Cementwerk Balingen G.m.b.H., process of manufacturing acid-proof hydraulic binding agents, (P.), B., 703.
 Poschenrieder, H. See Niklas, H.
 Posejpal, V., resonance absorption and yield of fluorescence in the X-ray region, A., 91.
 yield of fluorescence at the K level for the K α lines, A., 712.
 Posner, E., oxidation of chromic salts in acid solution with chlorine and bromine in presence of silver salts, A., 37.
 detection of chromium by oxidation with chlorine or bromine in presence of silver nitrate, A., 953.
 Pospelova, N. See Oparin, A.
 Pospisil, W., increase of Brownian movement by light, A., 823.
 Possanner, von, lignocell paper, B., 839.
 Post, P., "cryolac" number of milk and milk products as a means to determine quantity of added water, B., 154*.
 Posternak, S., phosphorus nucleus of caseinogen, A., 273, 581.
 Posternak, S., and Posternak, T., preparation of polypeptides containing the phosphoric and ferric nuclei of ovovitellin, A., 582.
 phosphorus nucleus of ovovitellin, A., 1100.
 Posternak, S. See also Society of Chemical Industry in Basle.
 Posternak, T. See Posternak, S.
 Potonié. See Hellmers.
 Potonié, R., compilation of data in favour of the organic origin of petroleum, B., 577.
 Potter, G. F., and Kraybill, H. R., fruit-spur composition in relation to fruit-bud formation, A., 1226.
 Potter, H. H., and Sucksmith, W., etch planes in metallic single crystals, A., 716.
 Potter, H. V., Crump, J. W., and Damard Lacquer Co., Ltd., hardening phenol-urea formaldehyde products, (P.), B., 228.
 Potts, H. E. See Blandford, T.
 Poulson, C. See Milbourne, R. J.
 Poumay, A., cupola furnace, (P.), B., 785*.
 Pound, J. R., electrical conductivities of solutions in aniline, A., 521.
 Povarnin, G., determination of the physical properties of leather, B., 586.
 Powell, A. R., Deering, E. C., and Johnson, Matthey & Co., Ltd., extraction of [platinum] metals from materials containing them, (P.), B., 942.
 Power-Gas Corporation, Ltd., and Rambush, N. E., production of water-gas and coal-gas from bituminous fuel with simultaneous recovery of ammonia and tar by-products, (P.), B., 515.
 Power Specialty Co., [boiler] furnaces, (P.), B., 129*.
 [fluid-cooled wall for] furnaces, (P.), B., 242, 321.
 Power Specialty Co. See also Primrose, J.
 Powers, D. H. See Bridgwater, E. R., and Elley, H. W.
 Powers, E. B., colorimetric method for the field determination of the carbon dioxide tension and free carbon dioxide, hydrogen carbonates, and carbonates in natural waters. I. Theoretical, B., 958.
 Powers, P. O., Lowy, A., and Hamor, W. A., oxidation and hydrolysis of light wood oil, B., 227.
 Powers, W. L., effect of hydrogen-ion concentration on the growth of certain plants, B., 663.
 colloidal fraction of certain soils having restricted drainage, B., 728.
 Powley, M. See Powley, R., & Sons, Ltd.
 Powley, R., & Sons, Ltd., and Powley, M., filtering apparatus, (P.), B., 320.
 Powling, W. T., recovery of fats, oils, or oleaginous substances from fat-containing materials, (P.), B., 495.
 Poznanski, S. See Swientoslawski, W.
 Pradel, C., alkali and alkaline-earth salts of bismuthotartaric acid, A., 228.
 Prätorius, M., and Wolf, Kuno, production of moulded silicic acid gel, (P.), B., 74.
 production of colloidal silicic acid solutions, (P.), B., 364, 481.
 Prager, W., glycerol content and specific gravity of technical glycerin solutions, B., 821.
 Prandtl, W., occurrence of manganese homologues of atomic numbers 43, 61, and 75, A., 433, 611*.
 Prandtl, W., and Grimm, A., search for element 61. II., A., 9.
 Prat, G. J., removal of solid substances from gases, (P.), B., 210.
 Prät, S., hydrogen-ion concentration and plasmolysis, A., 20.
 Prather, G. W., preparation of water-softening materials, (P.), B., 766.
 Pratje, W. See Schenck, R.
 Prats, F. C. y. See Chattaway, F. D.
 Pratt, D. D., Robertson, A., and Robinson, R., synthesis of pyrylium salts of anthocyanidin type. XII., A., 1083.

- Pratt, D. D. See also Morgan, G. T.
 Pratt, D. S. See Hedenburg, O. F.
 Pratt, L. S., Weltz, E. H., Mills, W. L., and Du Pont de Nemours & Co., E. I., making nitroaryl alkyl ethers, (P.), B., 398.
 Pratt, M. F. See Conant, J. B.
 Pratt, W. B., and Research Inc., dispersing substances in water, (P.), B., 128.
 production of aqueous rubber dispersion, (P.), B., 306*.
 Prausnitz, P. See Schott & Gen.
 Pray, H. A. H., stability of benzenediazonium chloride solutions.
 II. Reaction of benzenediazonium chloride with certain organic hydroxy-substances, A., 26.
 Precious Metal Industries, Ltd. See Warren, A. I. G.
 Predvoditelev, A., dependence of density on temperature, A., 102.
 Predvoditelev, A., and Blinov, V., influence of water of crystallisation on the photo-electric effect in crystal hydrates. I. and II., A., 497.
 Preiswerk, E., and Hoffmann-La Roche Chemical Works, manufacture of *OO*-diacyl derivatives of diphenolisatin, (P.), B., 380*.
 Preller, H., extraction of petroleum from oil-sands, bitumen from oil-chalks, oil-shales, coals, etc., (P.), B., 210.
 Prentice, J., and Pehrson, A. P., heat treatment of materials; [ore reduction or coal distillation], (P.), B., 351.
 Prentiss, A. M. See Cohn, E. J.
 Preobraschenski, N. See Stepanov, A.
 Préparation Industrielle des Combustibles, and Hoffmann, A., water-soluble phosphatic fertiliser, (P.), B., 663.
 manufacture of phosphatic fertilisers, (P.), B., 856*.
 Prescott, W. E. See Baker, G. R., and Baker Perkins, Ltd.
 Pressler, E. E. See Geller, R. F.
 Pressprich, H. See Foerster, F.
 Prestholdt, H. L., casein glue, (P.), B., 21.
 Prest-O-Lite Co., Inc. See Herly, C. J.
 Preston, F. W., polishing of surfaces, A., 100.
 stress systems and photo-elastic phenomena [in glass], B., 409.
 spalling of bricks, B., 410.
 Preston, G. D., formation of twin metallic crystals, A., 504.
 Preston, G. D., and Owen, E. A., atomic structure of AuSn, A., 815.
 Preston, G. D. See also Owen, E. A.
 Preston, L. R., soldering aluminium or its alloys, (P.), B., 303.
 Pretet, E. See Portevin, A.
 Prettner, determination of silicon and silica in aluminium, B., 414.
 Preussische Bergwerks- & Hütten-Akt.-Ges. Abtg. Salz- & Braunkohlenwerke, production of potassium nitrate, (P.), B., 777.
 Preussische Bergwerks- & Hütten-Akt.-Ges. Abtg. Salz- & Braunkohlenwerke, and Büchner, P. C., production of bromine and magnesium chloride tetrahydrate from bishopite, (P.), B., 189.
 Prever, G. See Prever, V.
 Prever, V., and Prever, G., chromium steels for ball-bearings or rolls, B., 487.
 Prevost, C., cycle of reactions of erythrene derivatives, A., 131.
 derivatives of $\Delta^{\alpha,\gamma,\epsilon}$ -hexatriene, A., 337.
 tautomerism of the two erythrene dibromides, A., 748.
 reactions of the diisocrotyl dibromides, A., 749.
 new class of tautomeric compounds; ionic theory of tautomerism, A., 851.
 Preynat, E., colouring steel brown, (P.), B., 846.
 Prianschnikov, D. N., physiological acidity of ammonium nitrate, A., 596.
 Prianschnikov, D. N. See also Demjanov, N. J.
 Pribyl, E., nitrogenous metabolism in experimental subacute arsenic and antimony poisoning, A., 1110.
 Price, J., and Grisco-Russell Co., heat exchanger, (P.), B., 207.
 evaporator, (P.), B., 464.
 Price, J. See also Grisco-Russell Co.
 Price, T. S., photographic sensitivity, B., 380.
 Price, T. S., and Glassett, J. W., thiocarbamide as an impurity in thiocyanates, B., 600.
 Price, T. W., decomposition of substituted carbamyl chlorides by hydroxy-compounds. III. Influence of substituent groups, A., 141.
 Price, T. W. See also Edison Swan Electric Co., Ltd.
 Prichard, G. L., and Gulf Refining Co., apparatus for cracking oil, (P.), B., 181.
 Prichard, G. L., Henderson, H., and Gulf Refining Co., cracking of [petroleum] oils, (P.), B., 162.
 manufacture of aluminium chloride, (P.), B., 388.
 method and apparatus for condensing aluminium chloride, (P.), B., 965.
 Prichard, W. L. See Sutcliffe, J. A.
 Prideaux, E. B. R., effect of temperature on diffusion potentials, A., 1033.
 Prideaux, E. B. R., and Cox, C. B., new fluorides of selenium, A., 532.
 Prideaux, E. B. R., and Gilbert, F. L., application of the hydrogen electrode to organic bases: piperidine and its use as an alkaline buffer, A., 1029.
 Prideaux, E. B. R. See also Gilbert, F. L.
 Priest, I. G. See Gibson, K. S.
 Priester, G. C., and Harder, O. E., effect of temperature on the mechanical and microscopic properties of steel, B., 844.
 Prileschaev, N., pulegone oxide, A., 669.
 Prillwitz, R. See Brahm, C.
 Primrose, J., and Power Specialty Co., dehydration of oil, (P.), B., 163.
 distillation of oil, (P.), B., 274.
 Prince, A. L. See Blair, A. W., and Lipman, J. G.
 Pringsheim, H., synthesis and degradation of polysaccharides, A., 136.
 [constitution of cellulose], A., 231.
 Pringsheim, H., Leibowitz, J., and Mechliniski, P., starch. XIX. Fermentative fission of the polyamyloses, A., 136.
 Pringsheim, H., and Meyersohn, P., starch. XX. Disaggregation of the polyamyloses, A., 860.
 Pringsheim, H., and Routala, O., relation of lichosan to lichenin, A., 136.
 Pringsheim, H., Schreiber, A., Beiser, A., Doster, W., Looftmann, H., Pojarlieff, G., Rosen, B., and Steinitz, E., constituents of wood spirit and acetone oils. IV., B., 720.
 Pringsheim, P., absorption spectrum of solid benzene at -180° , A., 186.
 Pringsheim, P., and Rosen, E., molecular spectra of sodium, potassium, and sodium-potassium mixtures, A., 809.
 Pringsheim, P. See also Carrelli, A., Gaviola, E., Kronenberger, A., and Orthmann, W.
 Prins, J. A. See Zernike, F.
 Prior, G. T., three South African meteorites, A., 225.
 Pritchard, H. A., fog correction of photographic densities: a sensitometric study, B., 957.
 Pritchard, H. A. See also Wilsey, R. B.
 Pritzker, J., and Jungkunz, R., apparatus for the determination of moisture by distillation with xylene, B., 63.
 Privault, action of anti-oxygenic compounds on fluorescence, A., 609.
 Prizma, Inc. See Kelley, W. V. D.
 Probert, M. E. See Faragher, R. G.
 Proca, A. See Yovanovitch, D. K.
 Process Engineers, Inc. See De Cew, J. A.
 Procopiu, S., theory of electrical conductivity in metals, A., 11.
 Procter, H. A., pulverised fuel burners, (P.), B., 404.
 delivery of pulverised fuel to furnaces, kilns, etc., (P.), B., 517.
 Procter & Gamble Co. See Richardson, A. S.
 Proctor, J. W., and General Chemical Co., manufacture of ammonium fluorides, (P.), B., 907.
 Proctor & Schwartz, Inc. See Rhoads, T. H., and Schwartz, W. M.
 Prodorite S.A., tar preparations, (P.), B., 518.
 Products Protection Corporation, moulding phenolic condensation products, (P.), B., 851.
 Proebsting, E. L., relation of stored food to cambial activity in the apple, A., 488.
 Proeschner, F., oil-red-O-pyridine, a rapid fat stain, A., 586.
 Prokofiev, V. K., ratio of the numbers of resonating electrons for the potassium doublets, A., 601.
 Prokofiev, V. K., and Gamov, G., anomalous dispersion in the principal series of potassium; ratio of the dispersion constants of the red and violet doublets, A., 998.
 Prophète, H., flower waxes; rose wax, A., 176*.
 Prosch, W., effect of acids on hydrophobic colloids, particularly gold, A., 110.
 Prosig, E., production of highly-polished surfaces, especially on artificial stone, (P.), B., 484.
 Proskurnin, M. See Kasarnovski, J.
 Proskurnina, N. See Stadnikov, G.
 Prouty, T. C., Prouty, W. O., and American Encaustic Tiling Co., Ltd., manufacture of a ceramic product, (P.), B., 524.
 Prouty, W. O. See Prouty, T. C.
 Provan, A. L. See Davies, R. O.
 Provatorova, E. L. See Avdejeva, M. S.

- Prudhomme, E. A., improving catalytic processes, (P.), B., 180.
desulphurising gases; production of sulphur from metal sulphides, (P.), B., 188.
- Prudhomme, E. A., and Société Internationale des Procédés Prudhomme, regeneration of metal catalysts contaminated by sulphur, (P.), B., 785*.
- Prudhomme, M., properties of saturated salt solutions at 100°, A., 104.
- Prujls, W., and Schrader, H., production of briquetting material, (P.), B., 66.
- Prupton, C. F. See Smith, A. K.
- Prutzman, P. W., Barton, P. D., and General Petroleum Corporation, purification of [hydrocarbon] oils, (P.), B., 7.
- Prutzman, P. W., and Contact Filtration Co., revivification of spent adsorbents for oil treatments, (P.), B., 771.
- Pryde, J., and Humphreys, R. W., constitutional studies in the monocarboxylic acids derived from sugars. IV. Isomeric lactones obtained from arabinose, A., 449.
- Przibram, H., and Schmalfuss, H., dihydroxyphenylalanine in the cocoons of *Samia cecropia*, L. (Saturniidae), A., 987.
- Przibram, K., simple lecture experiment on the viscosity of gases, A., 195.
discoloration and luminescence due to Becquerel rays. II., A., 393.
- Przybylla, C. See Köliehen, K.
- Przylecki, S. J., metabolism of uric acid in the living animal. V., A., 1108.
- Przylecki, S. J., Niedzwiedzka, H., and Majewski, T., structure and enzyme reaction. I. and II. The systems urea-urease-charcoal and polysaccharide-amylase-charcoal, A., 1113.
- Pschenitzin, N. See Grünberg, A.
- Püngel, W., relation of the mechanical properties of steel wire to the properties of the original wire and to the method of drawing, B., 222.
- Puening, F., carbonisation of coal, (P.), B., 930.
- Pürkhauser, R. See Niklas, H.
- Pugh, W., germanium. III. Salts of germanic acid, A., 31.
- Pukall, K. See Meyer, J.
- Pumm, W., gravimetric determination of chromium with mercury ammonium chloride (HgClNH_2), B., 480.
- Pummerer, R., constitution of caoutchouc, B., 788, 885.
- Pummerer, R. and Fiedler, H., diarylquinones. II. Yellow and red varieties of diarylquinones, A., 770.
- Pummerer, R., and Huppmann, G., diarylquinones. III. Condensation of quinones with phenols, A., 770.
- Pummerer, R., and Miedel, H., caoutchouc. III. Preparation of homogeneous caoutchouc hydrocarbons, A., 1192.
- Pummerer, R., Nielsen, H., and Gündel, W., caoutchouc. VI. Cryoscopic determinations of the mol. wt. of caoutchouc, A., 1193.
- Pummerer, R., and Pahl, H., caoutchouc. IV. Preparation of pure caoutchouc from latex by means of alkali and its division into sol and gel caoutchouc, A., 1193.
- Pummerer, R. See also Scheibe, G.
- Pumphrey, W. B., filtering device, (P.), B., 591.
- Pungs, W. See I. G. Farbenind. A.-G.
- Punnett, R. F. See Sheppard, S. E.
- Puntambeker, S. V., and Adams, R., polyhydroxyanthraquinones. VII. Structure and synthesis of hydroxyanthrarufin and of rufiopin, A., 362.
- Purcell, R. H. See Emeléus, H. J.
- Purdy, J. M. See Marling, P. E.
- Purks, H. See Davis, B.
- Purox Co. See Mott, C.
- Purmann, L. See Kirmreuther, H.
- Purvis, J. E., absorption spectra of "saturated" and "unsaturated" organic substances, A., 291.
influence of different centres of absorption on the spectra of substances, A., 496.
- Pushin, N. A., equilibrium in the binary systems diphenylamine-*p*-nitroanisole and phenol-*p*-toluidine at atmospheric and at higher pressures, A., 22.
- Pushin, N. A., and Basara, D., equilibria in binary systems containing cresol as one component, A., 628.
- Pushin, N. A., and Grebenshchikov, I. V., influence of pressure on the crystallisation temperature of *p*-azoxyanisole and α -naphthylamine, A., 101.
- Pushin, N. A., and Vaid, B., equilibrium in binary systems containing guaiacol as a component, A., 311.
- Putochin, N., derivatives of pyrrole; pyrrolidine, A., 157.
reaction of iodine with potassium chlorate in presence of acid, and preparation of the normal iodate, A., 529.
preparation of phenylhydrazine, A., 554.
transformations of ethyl isatin-*N*-carboxylate, A., 885, 1085.
- Putt, E. B., active-chlorine preparation, (P.), B., 218.
- Putter, A., nitrogen equilibrium and nitrogen balance; experiments with rye bread, A., 1107.
- Putzer-Reyberg, A. von. See Reindel, F.
- Pyhäälä, E., composition of Finnish "fluid resin," B., 708.
- Pyl, G., thermal decomposition of benzylideneaniline, A., 350.
mechanism of the production of diphenyl from benzene, A., 654.
- Pyman, F. L. See Brindley, W. H., Chew, C., Forsyth, R., and Hastings, J. J. H.
- Pyne, G. See Reilly, J.
- Pyne, G. T., determination of nitrates in plant materials, B., 729.
- Pyne, G. T. See also Drew, J. P.
- Pyrene Co., Ltd., and Pedersen, A. Z., low freezing-point solutions, (P.), B., 544.
- Pyriki, C. See Heiduschka, A.
- Pyzel, D., and Simplex Refining Co., separation of hydrocarbon fractions, (P.), B., 357.

Q.

- Quaker Oats Co. See Miner, C. S., Trickey, J. P., and Wilson, W. C.
- Quam, G. N., adapter, A., 438.
- Quarendon, R. See Bone, W. A.
- Quartaroli, A., reciprocal activation and de-activation of catalysts. II., A., 527.
rapid determination of manganese in steels, B., 910.
phenomena of absorption by soil colloids, studied by means of manganese salts, B., 917.
new method for the ready determination of manganese in soil, B., 918.
- Quartz & Silice, blowing and moulding of silica articles, (P.), B., 443.
manufacture of silica glass articles, (P.), B., 557.
manufacture of ceramic ware or materials, (P.), B., 602.
manufacture of silica articles with glazed surface, more particularly for laboratory use, (P.), B., 654.
drawing of pieces of silica glass or any other vitreous material, (P.), B., 750.
- Quarzlampen-Ges.m.b.H., irradiation apparatus for treating fluids with ultra-violet rays, (P.), B., 321.
- Quast, H. See Klostermann, M.
- Quastel, J. H., and Wooldridge, W. R., effects of chemical and physical changes in environment on resting bacteria, A., 280.
experiments on bacteria in relation to the mechanism of enzyme action, A., 1113.
- Qudrat-i-Khuda, M. See Kon, G. A. R.
- Quelet, R., preparation of *p*-bromobenzyl chloride, A., 452.
p-bromobenzyl chloride and the Grignard reaction, A., 452.
dimagnesium derivative of *p*-dibromobenzene, A., 890.
- Quelle, J. H. C., method of covering quartz fibres by cathodic pulverisation, A., 127.
- Quick, A. J., preparation of borneolglycuronic and glycuronic acids, A., 990.
- Quick, A. S., refining and decolorising oils and fats, (P.), B., 83.
- Quick, C. H. See Milligan, L. H.
- Quick, G. W., and Jordan, L., iron-carbon-vanadium alloy for Brinell balls, B., 752.
- Quick, G. W. See also Jordan, L.
- Quietensky, H. See Späth, E.
- Quilico, A., action of aminosulphonic acid on aromatic amines, A., 49.
- Quillard, C., measurement of the oxidisability of aluminium and its industrial alloys after activation by mercuric chloride, B., 940.
- Quinn, E. J., Burtis, M. P., and Milner, E. W., vitamins-A, -B, and -C in green plant-tissues other than leaves, A., 595.
- Quintin, (Mlle.) M., relation between the activity of hydrogen and metallic cations in solutions of salts of the heavy metals, A., 729.
- Quirk, R. F. See Wightman, E. P.

- Quittner, H., production of elastic, waterproof, adherent coatings, (P.), B., 420.
 Qvarfort, S., properties and uses of coko, B., 691.
 Qvist, W. [with Wük, G.], chlorination of creosol, A., 1066.

R.

- Raalte, A. van, application of ultra-violet light [in analysis of fats, etc.], B., 117.
 xylene and xylene percentage numbers [in examination of butter], B., 153, 569*.
 Rabe, H. See Tammann, G., and Windaus, A.
 Rabe, P., and Grasselli Dyestuff Corporation, dyeing [acetylcelluloses], (P.), B., 407*.
 Rabe, P., Schepss, W., and Grasselli Dyestuff Corporation, dyeing acidylcelluloses, (P.), B., 874*.
 Rabi, I. I., principal magnetic susceptibilities of crystals, A., 192.
 Rabinerson, A., flocculation of hydrophobic sols by mixtures of electrolytes, A., 624.
 Rabinova, L. M. See London, E. S.
 Rabinovitch, A. J., coagulation of colloids by electrolytes; arsenic trisulphide sol and barium chloride, A., 624.
 Rabinovitch, A. J., and Burstein, R., electrolytic coagulation of colloids. IV. Electrometric and conductimetric titration of mastie sols, A., 413.
 Rabinovitch, A. J., and Kargin, V. A., use of the quinhydrone electrode in electrometric titrations, A., 221.
 Rabinovitch, E., chemical activity of slow electrons, A., 708.
 Rabinovitch, F. See Kohn, M.
 Rabinovitch, I. M., cholesterol content of the blood-plasma as an index of progress in insulin-treated diabetics, A., 1106.
 metabolism of dihydroxyacetone in normal and diabetic individuals, A., 1217.
 Rabinovitch, J. See White, H. L.
 Rabinovitch, M. A., conductivity of organic compounds and certain elements in the solid and liquid state, A., 113.
 recovery of carbon dioxide from waste flue gases, B., 271.
 Rác, F. See Votček, F.
 Radbill, A. See Pinkus, A.
 Radet, E. See Joret, G.
 Radiac Metals, Ltd. See Shackelford, E. J.
 Radiation, Ltd., Brayshaw, S. N., and Brayshaw, E. R., furnaces, (P.), B., 320.
 Radiation, Ltd., Yates, H. J., and Howlett, M., & Co., Ltd., gas burners, (P.), B., 100*.
 Radio-Röhren-Laboratorium G. Nickel G.m.b.H., manufacture of electro-ionic discharge tubes, (P.), B., 584.
 Radovanovitch, H. See Goldstein, H.
 Rădulescu, D., phtalhydrazide. II. von Rothemburg's *N*-aminophthalimide. III. Mihăilescu's *N*-aminophthalimide, A., 665.
 Rădulescu, D., and Georgescu, V., iodine content of the salt from Rumanian rock-salt mines, B., 479.
 Rădulescu, D., and Gheorgiu, G., smooth extension of the ring from indandione to dihydroxynaphthalene derivatives. I., A., 243.
 Radványi, (Frau) M. See Gróh, J.
 Raeder, J. K. B., and Aktieselskabet Raeders Elektroglasovn, electric furnaces [for glass], (P.), B., 109.
 Raeder, M. G., binary systems of halides of the quadrivalent elements; systems with quadrivalent tin, A., 627.
 Raesch, O. See Müller, K.
 Răth, C., production of 5-iodo-2-aminopyridine, (P.), B., 507.
 preparation of means for fighting bacterial diseases, (P.), B., 619.
 production of iodised pyridine derivatives, (P.), B., 829.
 Răth, C. See also Binz, A.
 Raeth, F. C., conversion of chemical fertilisers to yeast and other organic substances, (P.), B., 793.
 Raffel, D., micro-determination of carbon dioxide in blood and other solutions; efficiency of paraffin in preventing loss of carbon dioxide, A., 1101.
 Raffinerie Tirmontaise Soc. Anon., removal of the fine grain contained in syrup and molasses, (P.), B., 921.
 Raffineries Internationales de Soufre, automatic feed for sulphur burners or distillation retorts, (P.), B., 482.
 Raffioer, E., and Leuchtenberg, W. E., desulphurising coal, water, or mixed gases for illuminating or heating, (P.), B., 403.
 Rahlfs, E. See Biltz, W.
 Rahr, C. E. See Flintkote Co.
 Rai, R. See Singh, B. K.
 Raiford, L. C., and Davis, H. L., bromination of *p*-acetamidophenyl methyl ketone, A., 564.
 Raiford, L. C., and Hilman, G. C., new derivatives of vanillin and some of their reactions, A., 768.
 Raiford, L. C., and Stoesser, W. C., new monobromo-derivatives of vanillin, A., 564.
 Raiford, L. C., and Talbot, W. F., acetylbenzoyl derivatives of 7-amino- β -naphthol, A., 354.
 Raikes, H. R. See Hartley, H.
 Raimondo, G., cellulose in the paper and artificial silk industries, B., 871.
 Rainbow Light, Inc. See Machlett, R. R.
 Rainbow Photo Reproductions, Inc., photoprinting, (P.), B., 621.
 Rainbow Photo-Reproductions, Inc. See also Flammer, E. F.
 Raine, F. See Thalheimer, W.
 Raiziss, G. W., and Abbott Laboratories, manufacture of mercurimononitro-*o*-cresol and salts, (P.), B., 573.
 Raiziss, G. W., Kremens, A., and Abbott Laboratories, solution of arsenobenzene derivatives, (P.), B., 172.
 production of arseno-bismuth compound, (P.), B., 268.
 Raiziss, G. W. See also Greenbaum, F. R.
 Rajtora, W. See Friedrich, H.
 Rakowski, A. V., standards and standard methods of examining chemical reagents; standards for sulphuric, hydrochloric, and nitric acids as reagents, A., 534.
 standards for rectified ethyl alcohol, B., 426.
 Rakowicz-Pogorzelska, (Mme.) H., line fluorescence of tellurium vapour, A., 292.
 Rakshit, J. N., constitution of porphyrone, A., 64.
 assumptions in the measurement of hydration of substances in aqueous solutions, A., 619.
 Rakuzin, M. A., dehydration of metal salt hydrates. V. Theory of the mode of combination of water of crystallisation, A., 948.
 Rakuzin, M. A., and Braudo, K., nutrose and eucasin, B., 154.
 chondrin and gluten, B., 154.
 Rakuzin, M. A., and Brodski, D. A., dehydration of the crystallohydrates of metallic salts, B., 187.
 dehydration of borax, B., 250.
 dehydration of hydrated salts. IV., B., 875.
 Rakuzin, M. A., and Rosenfeld, A., density of green solutions of potassium chromium alum, A., 932.
 Ralph, P. J. See Alsberg, J.
 Ralston, O. C., the ferric sulphate-sulphuric acid process, B., 906.
 Ralston, O. C. See also Maier, C. J.
 Ramachandran, S., reduction of copper sulphate by sodium hypophosphite, A., 1042.
 Ramage, A. S., manufacture of ozonides of hydrocarbons [turpentine substitutes], (P.), B., 661.
 Ramage, H., gallium in flue-dust, B., 447.
 Ramage, W. D., and Burd, J. S., protection of marine piling against borer attack, B., 938.
 Ramage, W. D. See also Randall, M.
 Raman, C. V., optical behaviour of protein solutions, A., 824.
 molecular scattering of light in a binary liquid mixture, A., 1009.
 relation of Tyndall effect to osmotic pressure in colloidal solutions, A., 1127.
 Raman, C. V., and Krishnan, K. S., magnetic double-refraction in liquids. I. Benzene and its derivatives, A., 92.
 magnetic birefringence constant of benzene, A., 296.
 electric double refraction in relation to the polarity and optical anisotropy of molecules. I. Gases and vapours. II. Liquids, A., 397.
 Maxwell effect in liquids, A., 1130.
 Raman, C. V., and Ramdas, L. A., thickness of the optical transition layer in liquid surfaces, A., 188.
 Raman, C. V., and Rao, J. R. K., magnetic double refraction, A., 499.
 Raman, C. V., and Sogani, C. M., X-ray diffraction in liquids, A., 499, 1015.
 Raman, C. V. See also Krishnan, K. S.
 Ramanuskas, P. P. See Griffith, I.
 Ramar Syndicate, Inc., [treatment of] wood-pulp paste, etc., (P.), B., 963.
 Ramar Syndicate, Inc. See also Marr, R. A.
 Ramart, (Mme.) P., mechanism of molecular rearrangements, A., 1051, 1190.

- Ramart, (*Mme.*) *P.*, and Amagat, (*Mlle.*), molecular transpositions; preparation and dehydration of some β -phenyl- β -alkylethyl alcohols, A., 241.
- Ramart, (*Mme.*) *P.*, and Fasal, pyrrolidones, A., 672.
- Ramart, (*Mme.*) *P.*, Lactôtre, (*Mlle.*), and Anagnostopoulos, action of organo-magnesium derivatives on α -trisubstituted primary amides, A., 875.
- Ramart, (*Mme.*) *P.*, and Salmon-Legagneur, *F.*, action of magnesium phenyl bromide on trisubstituted acetonitriles, A., 246.
- Ramart-Lucas. See Ramart.
- Ramb, *B.* See Feussner, *O.*
- Rambush, *N. E.* See Power-Gas Corporation, Ltd.
- Ramdas, *L. A.*, scattering of light by gaseous mixtures at high pressures, A., 93.
scattering of light by liquid surfaces, A., 812.
- Ramdas, *L. A.* See also Raman, *C. V.*
- Ramelot, *H.* See Huybrechts, *M.*
- Ramen, *A.*, chlorination of ores, (*P.*), B., 942.
- Ramsauer, *C.*, effective cross-sectional area of the carbon dioxide molecule against slow electrons, A., 1011.
- Ramsauer, *G.*, two problems in the extinction of iodine fluorescence, A., 187.
- Ramsay, *R. K.*, and Mayhew, Ramsay & Co., Ltd., grinding, milling, and pulverising apparatus, (*P.*), B., 831.
- Ramsden, *W.*, physical properties of composite surfaces, A., 108*.
- Ramsey, *J. B.*, iodometric determination of vanadium, A., 640.
- Ramsperger, *H. C.*, decomposition of azomethane; a homogeneous, unimolecular reaction, A., 425.
thermal decomposition of azomethane over a large pressure range, A., 137.
- Ramsperger, *H. C.* See also Rice, *O. K.*
- Randall, *M.*, significance of the activity coefficient, A., 1027.
calculation of activity coefficients, A., 1027.
- Randall, *M.*, and Breckenridge, *G. F.*, activity coefficient of hydrogen chloride in aqueous solutions with barium and lanthanum chlorides at 25°, A., 729.
- Randall, *M.*, and Langford, *C. T.*, activity coefficients of sulphuric acid in aqueous solutions with sodium sulphate at 25°, A., 729.
- Randall, *M.*, and Ramage, *W. D.*, partial molal heat capacity of the constituents and the specific heat of aqueous solutions of sodium and hydrogen chlorides, A., 208.
- Randall, *M.*, and Sealione, *C. C.*, conductivity of dilute aqueous solutions of the alkali hydroxides at 25°, A., 733.
- Randall, *M.*, and Scott, *G. N.*, f. p. and activity coefficients of aqueous barium nitrate, sodium sulphate, and sulphuric acid, A., 419.
variation of cell constant with concentration and molal conductivity of aqueous barium nitrate, sodium sulphate, and sulphuric acid at 0°, A., 421.
- Randle, *D. G.* See Linnell, *W. H.*
- Randoin, *L.*, and Fabre, *R.*, content of glutathione in certain tissues, and in the blood of the pigeon under normal conditions, when underfed, and when deprived of vitamin-B, A., 905.
- Randoin, *L.*, and Lecoq, *R.*, water-soluble vitamins-B and -C in malt and malt extract, A., 382.
- evolution of *B*-avitaminosis in its relation with the constitution of the carbohydrates of the diet, A., 796.
resistance of fat-soluble vitamins to hydrogenation, B., 57.
- Randoin, *L.*, and Michaux, *A.*, water, fatty acid, and cholesterol content of suprarenal glands of normal and scorbutic guinea-pigs, A., 283.
iron content of the liver, spleen, and blood during scurvy, A., 994.
- Randolph, *H. H.* See Amen, *N. C.*
- Randolph, *O. W.*, coal drying, (*P.*), B., 358*.
- Ranedo, *J.*, and Léon, *A.*, chlorides and amides of hexahydro-diphenyl-*o*-carboxylic acid, A., 148.
- Raney, *M.*, production of finely-divided nickel, (*P.*), B., 606.
- Ranfaldi, *F.*, rhombic sulphur isolated from volcanoes, A., 1013.
- Ranis, *L.* See Berl, *E.*
- Ranken, *C.*, surface of yeast as a factor in fermentation, B., 200.
- Ranker, *E. R.*, modification of the salicylic-thiosulphate method suitable for determination of total nitrogen in plants, plant solutions, and soil extracts, B., 536.
inaccuracies of the Devarda method when applied to plant materials, B., 536.
- Ranker, *I. T.* See Logue, *P.*
- Rankine, *A. O.*, and Avery, *J. W.*, electrical polarisation in selenium cells and the effects of desiccation, B., 492.
- Rankoff, *G.*, determination of starch in potatoes, B., 590.
- Ransomes & Rapier, Ltd., and Ionides, *P. D.*, concrete mixing apparatus, (*P.*), B., 77*.
- Rao, *I. R.*, light-scattering data for ten gases and sixty-three vapours of organic compounds, A., 1127.
- Rao, *J. R. K.* See Raman, *C. V.*
- Rao, *K. A. N.* See Forster, *M. O.*
- Rao, *K. R.*, spectra of doubly-ionised gallium and indium, A., 390.
spectrum of ionised tin (Sn III), A., 390.
series in the spectrum of trebly-ionised tin (Sn IV), A., 911.
- Rao, *K. R.* See also Narayan, *A. L.*
- Rao, *P. A. M.* See Porter, *A. W.*
- Rao, *S. R.*, scattering of light by liquids at high temperatures, A., 1127.
- Rao, *T. L.*, annatto extract for colouring butter, B., 954.
- Rapatz, *F.* See Sommer, *F.*
- Raper, *A. R.*, equilibrium diagram of copper-tin alloys containing from 10 to 25 atomic per cent. of tin, B., 817.
- Raper, *H. S.*, tyrosinase-tyrosine reaction. VI. Production from tyrosine of 5:6-dihydroxyindole and 5:6-dihydroxyindole-2-carboxylic acid—the precursors of melanin, A., 278.
action of tyrosinase on tyrosine, A., 1112.
- Raper, *H. S.* See also Oxford, *A. E.*, and Pearson, *L. K.*
- Rapkin, *L.*, and Wurmser, *R.*, intracellular oxidation-reduction potential, A., 1218.
- Rapp, *B.*, manufacture of a shadow-producing agent, (*P.*), B., 893.
- Rapport, *D.*, specific dynamic action of gelatin hydrolysates, A., 170.
- Rapport, *D.*, and Beard, *H. H.*, effect of products of hydrolysis of protein on metabolism. I. Fraction extracted by and precipitated in butyl alcohol. II. Effects of individual amino-acids, A., 694.
- Rapport, *D.*, and Katz, *L. N.*, effect of glycine on the metabolism of isolated perfused muscle, A., 480.
- Raschevsky, *N. von*, latent heat of fusion, A., 101.
- Raschig, *F.*, nitrosulphonic acid, A., 432.
wood-preserving composition, (*P.*), B., 222*.
manufacture of a liquid chlorothymol preparation, (*P.*), B., 237.
removal of phenol from waste water from coking plants, B., 691.
determination of sulphuric acid in drinking water by use of benzidine, B., 894.
distillation of benzol wash-oil under diminished pressure, B., 899.
[catalytic] oxidation of ammonia, B., 906.
- Raschig, *K.* See Freudenberg, *K.*
- Rasnikov, *I. P.*, Derwies, *G. W.*, and Sewerin, *S. E.*, action of carnosine on gastric secretion, A., 171.
- Rasetti, *F.*, intensity of the forbidden potassium line 4042 Å., A., 1118.
- Rasetti, *F.* See also Fermi, *E.*
- Rask, *O. S.*, rapid method for determination of starch, B., 311.
- Rask, *O. S.* See also Hermano, *A. J.*
- Rasselsteiner Eisenwerks-Ges., A.-G., and Bien, *A.*, generating the supplementary steam for gas producers, (*P.*), B., 722.
- Rassfeld, *P.*, new methods of gas analysis, A., 747.
- Rassow, *B.*, and Bhattacheryya, *R. C.*, examination of Indian coals, B., 160.
- Rassow, *E.* See Czochozalski, *J.*
- Rast, *K.* See I. G. Farbenind. A.-G.
- Rath, *E.* See Braun, *J. von*.
- Rath, *L.* See Feder, *E.*
- Rather, *J. B.*, Shepard, *F. S.*, and Standard Oil Co. of New York, reactivation of desulphurising agents for hydrocarbon oils, (*P.*), B., 437.
- Rathke, *E.*, and Windisch, *F.*, bottom- and top-fermentation yeasts, B., 424.
- Rathsack, *A.*, destruction of weeds, (*P.*), B., 422.
- Ratig, removal of slimes from hot, crude [carnallite] liquors by filtration in the Kelly press, B., 478.
- Ratignier, *M.*, continuously operating machine for phosphating and washing fabrics, (*P.*), B., 552.
- Ratke, *H.* See Sauerwald, *F.*
- Rauch, *A.*, Fuller's earth and its uses in the petroleum industry, B., 738.
- Rauch, *August*, determination of potassium by the aid of electro-metric titration, A., 331.

- Rauch, H. See Helferich, B., and Reindel, F.
 Rauchberg, H., acid-resisting bronzes for sulphite-cellulose works, B., 656.
 Rauchenberger, W. See Schlubach, H. H.
 Raudnitz, H. [with Böhm, H.], action of ethyl nitrate on diphenyl and its derivatives, A., 453.
 Raudnitz, H. [with Heller, H.], action of phosphorus, arsenic, and antimony trichlorides on dimethylaniline, A., 454.
 Raulot-Lapante, C. See Drault, L.
 Raurich, F. E., analysis of the fluid extract of *Hydrastis canadensis*, B., 156.
 Rauscher, R., Neubauer method for determining the solubility of rock phosphates [in soils], B., 918.
 Ravitch, M. See Sagaidatchni, A.
 Ravnestad, A. J., clarifying and purifying liquids and waste waters, (P.), B., 270*.
 Raw, G., separation of solid materials of different specific gravities, (P.), B., 735.
 Rawdon, H. S., intercrystalline corrosion of metals, B., 447.
 Rawdon, H. S. See also Blum, W., and Epstein, S.
 Rawitzer, W. See Freundlich, H.
 Rawling, F. G., improving the colour of pulp, (P.), B., 599.
 Rawling, S. O., sensitivity of photographic emulsions. II. Hydrogen-ion concentration and the silver|bromide-thiocarbamide complexes, B., 125.
 Rawlins, F. I. G., and Rideal, E. K., absorption spectra of aragonite and strontianite in the near infra-red, A., 1006.
 Rawlins, F. I. G., Taylor, A. M., and Rideal, E. K., absorption spectrum of strontianite in the short-wave infra-red, A., 5.
 Rawn, E. V., production of ferrophosphorus, (P.), B., 169.
 Ray, A. B., and Carbide & Carbon Chemicals Corporation, solvent recovery [from adsorbent carbon], (P.), B., 60.
 Ray, B. B. See Saha, N. N.
 Ray, G. B., and Stimson, B. B., chemical activity of the spleen. I. Relation to methæmoglobin in the blood, A., 792.
 Rây, J. N. See Perkin, W. H., jun.
 Rây, N. See Rây, (Sir) P. C.
 Rây, P. See Bhaduri, D.
 Rây (Sir) P. C., lengthened chain compounds of sulphur, A., 228.
 variability of valency, A., 1009.
 Rây, (Sir) P. C., Guha, B. C., and Bose-Rây, K. C., varying valency of platinum with respect to mercaptanic radicals. IV. Inadequacy of Werner's theory to explain certain anomalous cases, A., 444.
 Rây, (Sir) P. C., and Rây, N., double sulphates of the copper-magnesium group and the sulphonium bases. I., A., 740.
 Rây, P. R., thiosulphato-cobalt complexes and complex cobalt thiosulphates. I., A., 742.
 Ray, S., continuity of electrical structure of colloid particles, ions, electrons, and sub-electrons, A., 411.
 dependence of the Avogadro number on size of particles, A., 934.
 Ray, W. L. See Nicolet, B. H.
 Ray-Chaudhury, D. C. See Bose, P. K.
 Rayleigh, (Lord), continuous spectrum of mercury, A., 82.
 [ionisation phenomena in active nitrogen], A., 188.
 band spectrum of mercury from the excited vapour, A., 291.
 second green line of the auroral spectrum, A., 489.
 mercury band-spectrum of long duration, A., 496.
 bands in the absorption spectrum of mercury, A., 607.
 forbidden line of mercury at 2270 Å. in absorption, A., 911.
 series of emission and absorption bands in the mercury spectrum, A., 1122.
 Raymond, A. L., and Winegarden, H. M., purification of co-enzyme, A., 902.
 determination of carbon dioxide in fermenting mixtures, A., 996.
 Raymond, W. H. See Plimmer, R. H. A.
 Rayner, A., chemistry of palm oil, B., 371.
 Raynes, J. L., chemical decomposition of wool at 100°, B., 294.
 Raytheon Manufacturing Co., and Smith, C. G., gaseous electric conduction apparatus [rectifier], (P.), B., 561.
 Razubaiev, G. A., combined action of catalysts (nickel oxide and aluminium oxide) on solutions of substituted hydroxysuccinic acids under high pressure of hydrogen and at high temperatures, A., 1054.
 Razubaiev, G. A. See also Ipatiev, V. N.
 Rea, H. E., and Mullinix, R. D., action of ethylene on pure starch, A., 961.
 Rea, M. W., and Small, J., hydrogen-ion concentration of plant tissues. II. Flowering and other stems, A., 1225.
 Read, B. E., and Feng, C. T., ψ -ephedrine from Chinese *Ephedra*, A., 1116.
 Read, B. E., and Gow, G. K., iodine, arsenic, iron, calcium, and sulphur content of Chinese medicinal algæ, A., 600.
 Read, C. D. See Olin, H. L.
 Read, H. L., gas-fired enamelling furnaces for cast iron, B., 749.
 Read, H. S., effects of temperature on X-ray absorption, A., 83.
 X-ray absorption in heated silver, A., 999.
 Read, J., and Robertson, G. J., menthone series. V. *d-neoiso*-Menthylamine, A., 1080.
 Read, J., Robertson, G. J., and Cook, A. M. R., menthone series. IV. *iso*Menthols and *isomonthon*es, A., 772.
 Read, J., and Steele, C. C., optically active diphenylhydroxyethylamines and *isohydrobenzoin*s, I., A., 557.
 Read, J. See also McMath, A. M.
 Read, J. B. See Coolbaugh, M. F.
 Read, W. H. See Cooper, E. A.
 Reader, V., relation of the growth of certain micro-organisms to the composition of the medium. I. The synthetic culture medium. II. The effect of changes of surface tension on growth, A., 903.
 Reader, V., and Drummond, J. C., relation between vitamin-B and protein in the diet of growing rats; physiological rôle of vitamin-B. II., A., 79.
 Reams, J. A., and Fulton Brick Works, process and apparatus for burning clay products, (P.), B., 966.
 Rebel, O. See Kuhn, R.
 Reber, J. W. See Woodall-Duckham (1920), Ltd.
 Reboul, G., Déchéne, G., and Jacquesson, R., influence of the physical and chemical constitution of resistance cellules on the intensity of the radiation which they emit, A., 604.
 Reebberg G.m.b.H., A., Braun G.m.b.H., G., and Oestermann, H., reduction of auto-oxidation of oils and fats, (P.), B., 883.
 Reebberg G.m.b.H., A. See also Beil, A.
 Rechenberg, W. von, production of swollen or liquid animal glue, (P.), B., 949.
 Recknagel, K., specific refraction of whole [plasma-]protein, A., 1213.
 Reclaire, A., French lavender oils. II. The ester question, B., 267.
 Reclaire, A., and Spoelstra, D. B., determination of total geraniol content in citronella oil and examination of this oil in general, B., 427.
 Réceci, A., micro-analytical determination of sulphur and the halogens, A., 35.
 determination of halogens and sulphur in organic substances, A., 368.
 aliphatic and alicyclic disulphones, A., 750.
 quinonedisulphones, A., 1079.
 physiological action of two disulphones, A., 1110.
 Red River Refining Co., Inc., and Schulze, J. E., mineral oil distillation, (P.), B., 835.
 Redhead, F. A. See Lambie, C. G.
 Redlich, B. See Adelph, G.
 Redlich, O. See Abel, E.
 Redman, T., Willimott, S. G., and Wokes, F., p_H of the gastrointestinal tract of certain rodents used in feeding experiments and its possible significance in rickets, A., 692.
 Reed, C. J., and Berryhill, J. G., pulverising apparatus, (P.), B., 63.
 Reed, F. C., process for the direct synthesis of ammonia, (P.), B., 813.
 Reed, F. H. See Haslam, R. T.
 Reed, H. S. See Haas, A. R. C.
 Reed, L., and Denis, W., distribution of non-protein sulphur of the blood between serum and corpuscles, A., 787.
 Reed, L. See also Denis, W.
 Reedy, J. H., and Brock, W. S., preparation of a [sulphur] fungicide, (P.), B., 374.
 Reedy, J. H. See also Appling, J. W., and Fleming, C. S.
 Reel, J. H., and General Rubber Co., method of treating rubber and the products obtained thereby, (P.), B., 229.
 Rees, D. J., grinding, crushing, pulverising, mixing, and separating machines, (P.), B., 207.
 Rees, O. W. See Adams, R.
 Rees, W. J., further note on the storage of silica refractories, B., 44.
 influence of iron oxide in promoting the inversion of silica, B., 441.

- Rees, W. J., "spalling" in silica gas retorts, B., 523.
analysis of refractories, B., 654.
- Rees, W. J. See also Hugill, W.
- Reese, N. C. See Sawyer, R. A.
- Reeve, C. S., and Barrett Co., plastic [bituminous] composition, (P.), B., 836.
- Reeve, L. See Allmand, A. J., and Bone, W. J.
- Reeves, H. G., dl-glyceraldehyde, A., 1172.
- Refiners, Ltd. See Hart, B.
- Regeimbal, L. O., and Harvey, R. B., effect of ethylene on the enzymes of pineapples, A., 599.
- Regenstein, testing of water contaminated with coal gas, B., 862.
- Reger, M. See Seeliger, R.
- Regester, R. T. See Keeper, C. E.
- Regnaud, micrographic studies of vulcanised rubber, showing the evolution of the free sulphur, B., 884.
- Régnauld, P., fragility of steel, B., 967.
- Rehberg, P. B., ammonia in blood, A., 67.
- Rehbinder, P., heat of formation of surface layer at the bounding surface of solutions, A., 193.
effect of temperature on surface energy of solutions and biological liquids, A., 930.
surface energy and specific adsorptive power of various boundary surfaces, A., 930.
boundary surface activity and dielectric constants. I. Dependence of boundary surface activity and adsorption at various surfaces of separation on the polarity and dielectric constants of the two phases forming the boundary surface, and of the adsorbed substance, A., 1136.
- Reich, W. See Hess, K.
- Reichard, O., clarification of wine, B., 455.
- Reichel, L. See Goldschmidt, S.
- Reichinstein, D., validity of the "displacement principle" for solutions, A., 515.
- Reichinstein, D., and Reyter, W. von, passivity of metals from the point of view of the activation process. I. Activation process and steady anodic gas evolution, A., 833.
- Reichstein, T., 5-hydroxyfurfuraldehyde, A., 61.
acetovanillone, isoacetovanillone, and o-acetovanillone; (wandering of an acetyl group to the meta-position), A., 565.
qualitative organic analysis. III. Isolation of nitrogen-alkylated pyrroles, A., 573.
- Reid, A. See Thomson, G. P.
- Reid, A. McI., oil shales of Tasmania, B., 385.
- Reid, E. E., fifth report of the committee on contact catalysis, A., 837.
- Reid, E. E. See also Browne, O. H., Dunning, F., and Shaw, E. H.
- Reid, E. W. See Davidson, J. G.
- Reid, H. T., process and apparatus for making sodium chloride, (P.), B., 75.
- Reid, T. A., and Westinghouse Electric & Manufacturing Co., electric furnace resistor, (P.), B., 881.
- Reidemeister, W., determination of the vegetable constituents of marmalade, B., 456.
- Reif, G., methyl alcohol contained in spirits prepared from grape and fruit residues, B., 455.
vanillin in wine distillates, brandies, and adulterated brandies, B., 953.
- Reifenberg, A. See Fodor, A.
- Reiff, O. M., negative catalysis in the oxidation of benzaldehyde, A., 57.
- Reiff, O. M. See also Kilpatrick, M. L., and Rice, F. O.
- Reifferscheidt, A. See Société Anonyme les Agglomérés du Brabant.
- Reihlen, H., and Friedolsheim, A. von, complex nitric oxide compounds and so-called univalent iron, A., 951.
- Reihlen, H., and Hake, A., constitution of N_2O_4 and N_2O_3 ; additive compounds of nitro- and nitroso-compounds with tin and titanium tetrachlorides, A., 219.
- Reihlen, H., and Nestle, K. T., stereochemistry of platinous salts, A., 189.
- Reihlen, H., and Zimmermann, W., Prussian blue and complex metallic cyanides, A., 233.
- Reilly, A. See Coggeshall, G. W.
- Reilly, J., and Barrett, H. S. B., reduction products of some nitrodi-p-tolyl ethers, A., 763.
- Reilly, J., and Drumm, P. J., benzylation of the higher alkyl-anilines, A., 553.
- Reilly, J., and Drumm, P. J., action of nitrous acid on substituted p-phenylenediamines. I. as-Benzyl-n-butyl-p-phenylenediamine, A., 760.
- Reilly, J., Drumm, P. J., and Barrett, H. S. B., substituted diaryl ethers. I. Di-p-tolyl ether, A., 239.
- Reilly, J., and Pyne, G., modified micro-method for the determination of mol. wt., A., 925.
pigment produced by *Chromobacterium violaceum*, A., 1114.
- Reilly, J., and Sullivan, (Miss) J., peat. II. Distillation under reduced pressure of certain constituents of peat, B., 769.
- Reilly, J. See also Grimes, M.
- Reilly, J. F., machine for ore separation, (P.), B., 47.
- Reiman, C. K. See Petroleum Chemical Corporation.
- Reimann, A. See Benckiser, T.
- Reimann, A., jun. See Benckiser, T.
- Reimlinger, S. See Manchot, W.
- Rein, E. See Vesely, V.
- Reina, A. See Levi, G. R.
- Reinartz, F. See Lipp, P.
- Reinart, E., method of promoting the growth of plants with carbon dioxide, (P.), B., 121.
- Reinbeck, M., determination of colophony in shellac, B., 496.
- Reinbold, H., oil-treating composition, (P.), B., 7.
- Reindel, F., and Putzer-Reybeegg, A. von, products of the action of aromatic aldehydes or pyriminazol-2-one and cyclic 1:2-dicarbonyl compounds, A., 161.
- Reindel, F., and Rauch, H., constitution of the dye obtained by oxidation of pyriminazol-2-one with potassium ferrieyanide, A., 162.
- Reindel, F., Walter, E., and Rauch, H., yeast ergosterol. I., A., 241.
- Reineke, J. H., apparatus for determining the specific gravity of gases, in which a stream of gas flows in a tube provided with a baffle, (P.), B., 127.
- Reiner, L., deformation of titration curves of proteins in presence of strong electrolytes, A., 110.
preparation of serum-globulin and its definability, A., 1214.
- Reiner, L., and Kopp, H., formation of Licsegang rings in serological precipitation, A., 932.
- Reiner, M., and Riwin, R., theory of the streaming of an elastic liquid in the Couette apparatus, A., 1019.
hydrodynamics of systems of variable viscosity, A., 1138.
- Reinhard, M. C., ultra-violet absorption spectra of certain physiological fluids, A., 1104.
- Reinhard, M. C., and Buchwald, K. W., influence of intense X-ray and γ -ray radiation on cholesterol, A., 796.
- Reinhard, M. C. See also Riegel, E. R.
- Reinhardt, B., production of sodium hydrosulphide, (P.), B., 814.
- Reinhold, H. See Tubandt, C.
- Reinhold, J. G., and Karr, W. G., carbohydrate utilisation. II. Rate of disappearance of carbohydrates from the blood, A., 480.
- Reinoso, E. A. See Skowronski, S.
- Reinsch, O. See Neumann, B.
- Reinwein, H. See Grafe, E., and Müller, Helmut.
- Reis, A., calibration in quantitative spectral analysis, A., 329.
mechanism of electrolytic conductivity in crystals, A., 924.
- Reisener, H. See Remy, H.
- Reisler, S. See Lapenta, V. A.
- Reisman, J., action of anhydrous formic acid on d- α -pinene, A., 249.
- Reiss, E. See Madelung, W.
- Reiss, M., existence of the sub-electron, A., 5.
- Reissaus, G. G., determination of zinc by electrometric titration, A., 126.
volumetric determination of bismuth, and rapid gravimetric determination of bismuth in ores, A., 334.
- Reissert, A., and Schaaß, H., action of phenylthiocarbimide and phenylcarbimide on isatic acid, A., 62.
- Reissmann, E. See I. G. Farbenind. A.-G.
- Reiter, E. See Kirpal, A.
- Reiter Co. See McGill, C. T.
- Reith, J. F., determination of iodine in extract of thyroid gland, B., 764.
- Reitmann, J. See Wolfenstein, R.
- Reitstötter, J., preparation of cellulose nitrate solutions of low viscosity, A., 510.
electrodialysis in biochemistry; technical processes, B., 849.
- Reitstötter, J. See also Eggert, J., and I. G. Farbenind. A.-G.
- Rejna, A., crystal structure of calcium hydroxide, A., 1128.

- Rekord-Zement-Ind. G.m.b.H., and Tetens, O., production of unsintered hydraulic cement, (P.), B., 966.
- Rekschinski, V., preparation of dimethylglyoxime by the action of nitrous and sulphurous acids on ethyl methylacetoacetate, A., 544.
- Remesov, J., influence of administration of active iron oxide on metabolism with special reference to nitrogen equilibrium and the behaviour of the C : N urinary quotient, A., 899.
- effect of increased calcium intake on dystrophic renal calcification in rabbits, A., 900.
- vacuum flask for conductivity determination and for conductometric analysis, A., 1159.
- Remesov, J. See also Bickel, A.
- Remington, R. E., hitherto unsuspected source of arsenic in human environment, A., 798.
- Remington, R. E., and McRoberts, L. H., determination of gelatin in ice cream, B., 730.
- Remsen, D. B. See Calvery, H. O.
- Remy, E., behaviour of active chlorine preparations towards organic materials, B., 270.
- vitamin content of sterilised foodstuffs, B., 667.
- Remy, H., catalytic activity of contact substances. IV., A., 28.
- law of homopolar combination of atoms; co-ordination compounds of platinum metals, A., 94.
- hydrate problem. V. Electrolytic transport of water in N-solutions, A., 315.
- electrolytic transference of water, true transference numbers, ionic mobilities, and water sheaths of the ions, A., 1032.
- Remy, H., and Finners, H., mists from chemical reactions. IV. Absorption of mists by liquids and solids, A., 107.
- Remy, H., and Reisener, H., water transference in solutions of organic electrolytes, A., 521.
- Remy, H., and Wagner, T., platinum metals. VI. Role of carbon monoxide in the preparation of ruthenium trichloride by direct union of its elements, A., 34.
- reduction of ruthenium trichloride by sodium amalgam, A., 328.
- Remy, W. See Roitzheim, A.
- Renn, H. V. E. M., sources of error in glass volumetric apparatus, B., 735.
- Renner, O. See Kraus, P.
- Rennerfelt, I., electric furnace, (P.), B., 850.
- Rennotte, J., treating liquids with gases or vapours, (P.), B., 464.
- Renshaw, A. See British Dyestuffs Corporation, Ltd., and Fairbrother, T. H.
- Renson, L. See Jacobsen, J.
- Rentschler, H. C., Marden, J. W., and Westinghouse Lamp Co., target for X-ray tubes, (P.), B., 584.
- Rentschler, H. C. See also Marden, J. W.
- Renwanz, G. See Krause, E.
- Renwick, F. F., turbidimetry and grain size, B., 349.
- Renzo, G., triboluminescence, A., 712.
- Repiewa, A. See Frédericksz, V.
- Reschke, J. See Hein, F.
- Research Association of British Rubber & Tyre Manufacturers. See Gallie, G., and Porritt, B. D.
- Research, Inc. See Pratt, W. B.
- Resines, F. J., and By-Products Recovery Co., refining oils, (P.), B., 304.
- Respro, Inc., and Abbott, R. K., manufacture of a leather substitute, (P.), B., 854.
- Restaino, S. See Carobbi, G., and Zambonini, F.
- Reumuth, H. See Steinkopf, W.
- Reuter, R. See Norris, J. F.
- Reutter, J. See Braun, J. von.
- Revello, M. See Sensi, G.
- Reverdin, F., 3-nitro-*p*-phenetidine, A., 353.
- action of alcoholic potassium hydroxide on chloroacetyl-*p*-anisidine and *p*-phenetidine: derivatives of piperazine, A., 576.
- Revere Rubber Co. See McGavack, J.
- Révész, T. See Silberstein, F.
- Rey, G. See Meunier, L.
- Reychler, A., photochemical studies. IX. Action of certain oxidants on the latent image, B., 429.
- Reyerson, L. H., Harder, O. E., and Swearingen, L. E., metal films reduced on the surfaces of silica gel, A., 16.
- Reyerson, L. H., and Swearingen, L. E., adsorption of gases by metallised silica gels, A., 198.
- Reyerson, L. H. See also Morris, V. N.
- Reyes, M. O. See Perkins, G. A.
- Reymersholms Gamla Ind. Aktiebolag, utilising the liquors derived from chloridising roasting pyrites cinder and the like, (P.), B., 555.
- Reynhart, A. F. A., action of benzoyl peroxide on benzene at low temperatures and in the presence of iron and aluminium chlorides, A., 356.
- action of benzoyl peroxide on chlorides and oxychlorides of phosphorus and antimony, A., 356.
- decomposition of benzoyl and succinyl peroxides at a high temperature and without solvents, A., 356.
- action of chlorinated hydrocarbons on benzoyl peroxide with or without the presence of aluminium chloride, A., 357.
- Reynolds, D. A. See Davis, J. D.
- Reynolds, M. M., gas-separating apparatus, (P.), B., 770.
- Reyter, W. von. See Reichstein, D.
- Reznikoff, P., and Chambers, R., micrurgical studies in cell physiology. III. Action of carbon dioxide and some salts of sodium, calcium, and potassium on the protoplasm of *Amaba dubia*, A., 696.
- Rhead, T. F. E., residual and extinctive atmospheres of flames, B., 130.
- Rhead, T. F. E., and Jefferson, R. E., determination of relative ignitabilities and combustibilities of domestic cokes; tests on the possibilities of a "brazier and weighing method," B., 401.
- Rheinboldt, H., simple reaction for the thiol group, A., 227.
- Rheinboldt, H. [with Pieper, H., and Zervas, P.], organic molecular compounds with co-ordination centres. I., A., 242.
- Rheinboldt, H., and Dewald, M., crystalline, blue ψ -nitrole, A., 226.
- reactions of nitrosyl chloride. III. Action of nitrosyl chloride on aliphatic aldioximes, A., 229.
- reactions of nitrosyl chloride. IV. Action of nitrosyl chloride on ketoximes, A., 851.
- Rheinboldt, H., Dewald, M., Jansen, F., and Schmitz-Dumont, O., reactions of nitrosyl chloride. II. Action on aromatic aldioximes, A., 245.
- Rheinboldt, H., and Wasserfuhr, R., compounds of nitrosyl chloride with inorganic chlorides, A., 431.
- Rheinische Kampfer-Fabrik G.m.b.H., and Schöllkopf, K., manufacture of [inactive] menthol, (P.), B., 733.
- Rheinische Kampfer-Fabrik G.m.b.H. See also Schöllkopf, K.
- Rheinische Metallwaaren- & Maschinenfabrik, case-hardening of steel articles, (P.), B., 369.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., production of solid ammonium carbonate from its components, (P.), B., 652, 777.
- production of barium oxide, (P.), B., 777.
- manufacture of glass containing barium, (P.), B., 779.
- production of barium carbonate suitable for the manufacture of pure barium oxide, (P.), B., 965.
- Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges., and Rüsberg, F., decomposition of crude phosphates, (P.), B., 792.
- Rhenania Verein Chemische Fabriken Akt.-Ges., manufacture of moulded sulphur, (P.), B., 409.
- Rhenania Verein Chemische Fabriken Akt.-Ges., and Böhm, F., central feed for mechanical sulphate kiln, (P.), B., 481.
- Rhenania Verein Chemische Fabriken Akt.-Ges., Gerngross, O., and Rülke, K., disinfectant, antiseptic, and medicament, (P.), B., 93.
- Rhenania Verein Chemische Fabriken Akt.-Ges., and Rüsberg, F., manufacture of alkali sulphates, (P.), B., 481.
- Rhenania Verein Chemische Fabriken Akt.-Ges. See also Marwedel, J. E.
- Rhoads, T. H., and Proctor & Schwartz, Inc., dryer, (P.), B., 64.
- Rhodes, F. H., and Bascom, C. H., vapour-composition relationships in the system bromine-water, A., 730.
- Rhodes, F. H., and Eisenhauer, F. S., solubility of naphthalene in certain aromatic hydrocarbons, B., 324.
- Rhodes, F. H., Jayne, D. W., jun., and Bivins, F. H., phenol fusion, B., 597.
- Rhodes, F. H., Mason, C. W., and Sutton, W. R., crystallisation of paraffin wax, B., 739.
- Rhodes, F. H., and Welz, C. J., chemistry of tung oil, B., 146.
- Rhodes, J. E. W., volumetric determination of magnesium in magnesium chloride solutions, B., 364.
- Rhodes, P. N. See Beams, J. W.
- Rial, W. D., and Gard, E. W., preparation of an adsorbent for [liquid petroleum] oils, (P.), B., 771, 962.
- Rial, W. D. See also Black, J. C.

- Ribarić, I. See Samec, M.
 Ribas, I. See Fournneau, E.
 Ribbeck, F., dependence of electrical resistance of nickel steel on composition, temperature, and heat treatment, B., 111.
 Ricard, E. See Langwell, H.
 Ricca, B., formation of hydrocyanic acid by action of persulphates on aromatic nitro-derivatives. I. and II., A., 660.
 Rice, E. W., and Murray, G. W., *jun.*, factors influencing char filtration [of sugar] solutions, B., 263.
 Rice, F. O., and Kilpatrick, M. L., photochemical decomposition of hydrogen peroxide solutions, A., 1154.
 Rice, F. O., and Reiff, O. M., thermal decomposition of hydrogen peroxide, A., 1035.
 Rice, F. O. See also Kilpatrick, M. L.
 Rice, G. P., orientation of the bromine atom in bromodimethoxybenzoic acid, A., 150.
 Rice, J. A., manufacture of porous or cellular cements, (P.), B., 142.
 Rice, O. K., electrocapillary curve near its maximum, A., 13.
 equilibrium in colloid systems. II. Coagulation, A., 202.
 dynamic surface tension and the structure of surfaces, A., 306.
 Rice, O. K., and Ramsperger, H. C., theories of unimolecular gas reactions at low pressures, A., 833.
 Rich, M. N. See Marden, J. W.
 Richard. See Guillissen, J., and Petit, P.
 Richard, A. P., desensitisation, B., 238.
 Richard, A. P. See also Mauge, R.
 Richards, (Miss) C. E., and Roberts, R. W., magnetic rotation of solutions of certain ferric salts, A., 398.
 Richards, D. W., *jun.*, and Coburn, A. F., diet determinations, A., 275.
 Richards, D. W., *jun.*, and Strauss, M. L., oxyhemoglobin dissociation curves of whole blood in anemia, A., 896.
 Richards, E. H., Hutchinson, H. B., and Adco, Ltd., manufacture of nitrogenous fertilisers, (P.), B., 263*.
 Richards, E. M., Faulkner, I. J., and Lowry, T. M., dynamic isomerism. XXIII. Mutarotation in aqueous alcohols, A., 858.
 Richards, E. M. See also Swoboda, H. O.
 Richards, M. B., Godden, W., and Husband, A. D., influence of variations in the sodium:potassium ratio on the nitrogen and mineral metabolism of the growing pig. II., A., 899.
 Richards, T. W., magnitude of internal pressures, especially that of mercury, A., 103.
 Richards, W. T., effect of α -particles on paraffin, A., 289.
 Richardson, A. S., Conley, C. V., and Procter & Gamble Co., decomposition of fats or oils into fatty acids and glycerol, (P.), B., 585.
 Richardson, A. S. See also Taylor, G. B.
 Richardson, C. H., and Smith, C. R., toxicity of dipyrityls and certain other organic compounds as contact insecticides, B., 199.
 Richardson, C. H. See also Griffin, E. L.
 Richardson, D. F., analysis of hydrated lime by a thermochemical method, B., 477.
 Richardson, E. H., and Edison Electric Appliance Co., Inc., [fusible] alloy, (P.), B., 169.
 Richardson, G., manufacture of barium sulphide, (P.), B., 937*.
 Richardson, H. K., and Westinghouse Lamp Co., affixing [metallic oxide] coatings on incandescence lamp filaments, (P.), B., 416.
 Richardson, H. K. See also MacRae, D.
 Richardson, H. L. See Farmer, E. H.
 Richardson, J. F., distillation of solid carbonaceous materials, (P.), B., 134.
 Richardson, O. W., structure in the secondary hydrogen spectrum. V., A., 1.
 present state of atomic physics, A., 489.
 connexion between visible and ultra-violet bands of hydrogen, A., 495.
 hydrogen band spectrum: new band systems in the violet, A., 916.
 intensity distribution among the lines of certain bands in the spectrum of the hydrogen molecule, A., 1004.
 Richardson, O. W., and Brotherton, M., electron emission under the influence of chemical action at higher gas pressures, and some photo-electric experiments with liquid alloys, A., 713.
 Richardson, O. W., and Robertson, F. S., emission of soft X-rays by different elements, A., 804.
 Richardsons, Westgarth, & Co., Ltd., and Inglis, F. G., apparatus for cooling and purifying gases, (P.), B., 897.
 Richarz, H., recent measurements and observations on automatic shaft kilns for calcining cement, B., 190.
 Richarz, S., amphibole grunerite of the Lake Superior region, A., 850.
 Riches, Piver & Co. See Sanders, G. E.
 Richey, C. F. See Motor Fuel Corporation.
 Richling, J. See Zellner, J.
 Richmond, H. D., polarimetric determination of sucrose in sweetened condensed milk, B., 827.
 Richter, A. See I. G. Farbenind. A.-G.
 Richter, C. F., hydrogen atom with a spinning electron in wave mechanics, A., 801.
 Richter, F., and Wolff, W., γ -terpinene, A., 364.
 Richter, G. A., and Brown Co., producing pulp high in resistant cellulose, (P.), B., 104, 963.
 pulping raw cellulosic material, (P.), B., 104.
 cooling and utilisation of the heat content of relief gas from sulphite digesters, (P.), B., 215.
 producing white pulp of high strength, (P.), B., 746.
 treatment of fibre, (P.), B., 774.
 manufacture of sulphite cooking liquor, (P.), B., 814.
 Richter, G. A., Schur, M. O., and Brown Co., process of bleaching cellulosic material, (P.), B., 811.
 Richter, H. See Schwarz, R.
 Richter, K. See Bosse, J. von.
 Riddell, W. H. See Hughes, J. S.
 Riddle, F. H., and Champion Porcelain Co., [manufacture of] porcelain, (P.), B., 602.
 Riddle, O., and Burns, F. H., physiology of reproduction in birds. XXII. Blood-fat and -phosphorus in the sexes, A., 1107.
 Rideal, E. K., physical phenomena at interfaces, A., 108*.
 Rideal, E. K., and Wright, W. M., low-temperature oxidation at charcoal surfaces. III. Behaviour of blood charcoal and the influence of temperature on the reaction rate, A., 118.
 Rideal, E. K. See also Caress, A., Elder, L. W., *jun.*, Fowler, R. H., Hoover, G. I., Mouquin, H., Rawlins, F. I. G., Taylor, A. M., Willey, E. J. B., and Wood, B. J.
 Rider, D. See Morgan, J. S.
 Ridge, B. P. See Clibbens, D. A.
 Ridge, H. M., and Hodgkinson, W. R., process for purifying oils and the like, (P.), B., 68*.
 Riding, R. W. See Baly, E. C. C., and Morton, R. A.
 Ridley, F. T., coating articles with cellulose acetate, (P.), B., 296.
 Riebeck'sche Montanwerke A.-G., A., production of montan wax from lignite, (P.), B., 181.
 oxidation of rosin (colophony) by air or oxygen, (P.), B., 305.
 preparation of ethereal non-resinous condensation products from phenol and formaldehyde, (P.), B., 392.
 refining and desulphuring light oils, especially low-temperature benzines, (P.), B., 695.
 Riehl, R., latex and rubber from young trees, B., 662.
 ageing properties of rubber coagulated with formic acid, B., 885.
 Riechen, F., sodium selenite [in coffee] as a cause of poisoning, B., 614.
 Riedel, J. D., Akt.-Ges., manufacture of barbituric acid derivatives, (P.), B., 237.
 production of dicyclic bases, (P.), B., 286.
 extraction of phosphatides from the soya bean, (P.), B., 829.
 motor fuel, (P.), B., 835.
 fixing agent for perfumes, volatile solvents, etc. (P.), B., 893.
 production of compact aluminium hydroxide, (P.), B., 966.
 Riedel, J. D., Akt.-Ges. See also Boedecker, F., and I. G. Farbenind. A.-G.
 Rieder, J., sensitised coatings and processes for photo-etching, (P.), B., 829.
 Riegel, C., formation of lactic acid after severe hæmorrhage; rate of disappearance of sodium lactate injected intravenously and its effect on sugar and inorganic phosphate of the blood, A., 897.
 Riegel, E. R., and Reinhard, M. C., zone pattern formed by silver dichromate in solid gelatin gel, A., 625.
 Riegel, E. R., and Williams, J. F., new colour reaction for procaine [novocaine] and some other local anesthetics, and its application to the determination of procaine, B., 58.
 Riegert, A., production of methane and carbon dioxide from carbon monoxide and hydrogen, (P.), B., 937.
 Riehm, safety precautions in tar distillation, B., 100.
 Riemer, K. See Sachs, O.
 Rienäcker, G. See Zintl, E.

- Riera, *J. F.*, manufacture of synthetic aquamarine stones, (P.), B., 523.
- Ries, *E. D.* See Lewis, *W. K.*
- Riese, *W.* See Gluud, *W.*
- Riesenfeld, *E. H.*, flowmeter for gases, B., 799.
- Riesenfeld, *E. H.* See also Deutsche Petroleum A.-G., and Josephy, *E.*
- Riesenfeld, *F.* See Gebauer-Fülneegg, *E.*
- Riesenfeldt, *H.* See Rosenmund, *K. W.*
- Riess, *G.*, and Meyer, *R.*, comparison of meats pickled with salt-petre made from Chili saltpetre and from synthetic sodium nitrate, B., 712.
- Riesser, *O.*, hydrolysis of phosphoric esters in the surviving liver and the influence of drugs on the reaction; liver lactacidogen, A., 174.
- Riesz, *E.* See Gebauer-Fülneegg, *E.*
- Rieth, *C. T.*, diffusion of carbamide in different fluids of the animal organism, A., 987.
- Rigby, *T.*, manufacture of cement, (P.), B., 76, 678*.
- calcining or other operations in rotary kilns, (P.), B., 464.
- Rigg, *G.* See Gepp, *H. W.*
- Rigg, *J. F.* See Chambers, *A.*
- Riggs, *L. K.*, and Squibb, *E. R.*, & Sons, production of anhydrous hyposulphites, (P.), B., 107.
- Riley, *G. W.* See Scott & Son (London), Ltd., *G.*
- Riley, *H. L.*, existence of silver hydroxide in the solid state, A., 324.
- Riley, *H. L.* See also Baker, *H. B.*
- Riley, *J.*, & Sons, Ltd. See Bentley, *W. H.*
- Riley, *R.* See Sweeney, *O. R.*
- Rimington, *C.*, phosphorus compounds of milk. III. De-phosphorised caseinogen; action of alkali on caseinogen, A., 272.
- phosphorylation of proteins, A., 581, 1211.
- phosphorus of caseinogen. I. Isolation of a phosphorus-containing peptone from tryptic digests of caseinogen. II. Constitution of phosphopeptone, A., 1211.
- Rimini, *G.*, pyruvic acid as an intermediate product of alcoholic fermentation, A., 279.
- biochemical method for detecting watering of milk, B., 501.
- Rinck, filtration of crude [potassium chloride] solutions in the Sweetland filter-press, B., 478.
- Rinck, *B.* See Hackspill, *L.*
- Rinck, *J.*, production of gelatin and glue from chrome-leather or its shavings, (P.), B., 150*.
- Rinderspacher, *M.* See Fichter, *F.*
- Rindtorff, *E.* See Tubandt, *C.*
- Ring Gesellschaft Chemische Unternehmungen m.b.H., producing active silicic acid, (P.), B., 748.
- Ringbom, *A.* See Hägglund, *E.*
- Ringer, *W. E.*, and Grutterink, *B. W.*, influence of the reaction on the proteolytic power of papain. II., A., 378.
- Ringrose, *H. T.*, detecting, indicating, and recording the presence of inflammable vapours or gases, (P.), B., 468.
- Rinkenbach, *W. H.*, properties of glycol dinitrate, B., 27.
- properties of diethylene glycol, B., 377.
- preparation and properties of diethylene glycol dinitrate, B., 763.
- analysis of mixtures of aliphatic nitrates by means of the refractometer, B., 958.
- Rinkenbach, *W. H.* See also Taylor, *C. A.*
- Rinkes, *I. J.*, action of sodium hypochlorite on acid amides. III. and IV., A., 45, 652.
- nitration by means of a mixture of nitrosulphuric and fuming nitric acids, A., 143.
- simultaneous diazotisation and nitration of aromatic amino-compounds, A., 867.
- Rinman, *E. L.*, producing pure aluminium hydroxide, particularly from aluminium-containing raw materials rich in silica, (P.), B., 74.
- pre-treating wood chips in the production of soda cellulose, (P.), B., 104*.
- dry distillation of alkalisied waste liquor from soda cellulose manufacture, (P.), B., 746*.
- production of cellulose and paper from straw, esparto, reed, and similar raw materials, (P.), B., 873.
- Rinne, *F.*, orthotaxy and thermotaxy, B., 582.
- Rintze, *T. F.*, gas production, (P.), B., 625.
- Riou, *P.*, apparatus for the measurement of the speeds of absorption of gases by liquids, A., 224.
- Riou, *P.*, and Cartier, *P.*, influence of organic substances on the rate of absorption of carbon dioxide by solutions of sodium carbonate, A., 311.
- Ripert, *J.*, function and formation of essence of mint by the secretory hairs of the plant, B., 505.
- Rippel, *A.*, physiological equilibrium in plants. III. Connexion between the course of absorption of soil nutrients and their movement in plants, A., 1116.
- basis of microbiological experiments in soils, B., 306.
- Rippel, *A.*, and Bortels, *H.*, importance of carbon dioxide for the plant cell; experiments with *Aspergillus niger*, A., 597.
- Rippel, *A.*, and Walter, *K.*, nitrogen content of aspergillin, A., 906.
- Ripper, *K.*, and Pollak, *F.*, manufacture of homogeneous glass-like condensation products of carbamide and formaldehyde, (P.), B., 532*.
- Rippert, *P.*, manufacture of a manure, (P.), B., 56.
- Ripsey, *H. F.* See Davidson, *G.*
- Rippie, *C. W.* See Braley, *S. A.*
- Rising, *M. M.*, and Zee, *T. W.*, new method of preparation of methyl phenylethylmalonate, A., 359.
- Riskal'chuck, *A.* See Kostytshev, *S.*
- Risler, *J.* See Philibert, *A.*
- Risseghem, *H. van*, Δ^2 -hexene, A., 38.
- Rissik, Fraser & Co., Ltd. See Fraser, *A.*
- Ritchie, *D. W.* See Dunsmore, *M. C.*
- Ritchie, *K. S.*, measurement of colour [of sugar liquors] in Stammer units on a Kober-Klett colorimeter, B., 952.
- Ritschel, *E.* See Moser, *L.*
- Ritschl, *R.*, classification of absorption spectra, A., 496.
- Ritsert, *E.*, manufacture of anæsthetic and antiseptic compounds, (P.), B., 60.
- Ritter, continuous cooler for potassium chloride liquors, B., 477.
- Ritter, *G.* See Stock, *A.*
- Ritter, *G. J.*, crystalline substances isolated from lignin, A., 650.
- Rittner, *H.* See I. G. Farbenind. A.-G.
- Rivat, *G.*, and Lyons Piece Dye Works, production of weighted artificial silk, (P.), B., 675.
- Rivat, *G.* See also Cadgene, *E.*
- Rivett, *A. C. D.*, and Packer, *J.*, ternary system barium iodide-iodine-water and the formation of polyiodides, A., 731.
- Rivière, *C.* See Clément, *L.*
- Riwlin, *R.* See Reiner, *M.*
- Roach, *B. M. B.*, relation of certain soil algae to some soluble carbon compounds, A., 176.
- carbon nutrition of some algae isolated from soil, A., 994.
- Roark, *R. C.*, Farman, *D. C.*, Bishopp, *F. C.*, and Laake, *E. W.*, repellants for blowflies, B., 766.
- Roark, *R. C.* See also Cotton, *R. T.*
- Robb, *G. W.* See Harrington, *J. H.*
- Roberts, *A.*, coke oven and the like, (P.), B., 6.
- Roberts, *E.*, and Turner, *E. E.*, factors controlling the formation of some derivatives of quinoline; substitution in the quinoline series, A., 945.
- Roberts, *E.*, and Western States Machine Co., centrifugal machine, (P.), B., 465.
- Roberts, *M. N.*, relation of bleach concentration to specific gravity, B., 479.
- Roberts, *R. H.*, apple physiology, growth, composition, and fruiting responses in apple trees, A., 283.
- Roberts, *R. W.* See Richards, (*Miss*) *C. E.*
- Robertson, *A.*, synthesis of glucosides. I. Synthesis of indican, A., 960.
- Robertson, *A.*, and Robinson, *R.*, synthesis of anthocyanins. II. Synthesis of 3- and 7-glucosidoxylavylum salts, A., 252.
- synthesis of anthocyanins. III., A., 974.
- pyrylium salts of anthocyanidin type. XIV., A., 1084.
- Robertson, *A.* See also Pratt, *D. D.*
- Robertson, *A. C.*, negative catalysis in a homogeneous system, A., 632.
- promoter action in homogeneous catalysis. IV. Decomposition of hydrogen peroxide by potassium dichromate accelerated by manganese salts, A., 837.
- Robertson, *E.*, filter, (P.), B., 465.
- Robertson, *F. S.* See Richardson, *O. W.*
- Robertson, *G. J.* See Read, *J.*
- Robertson, *H. M.*, apparatus [tunnel kiln] for burning or calcining materials, (P.), B., 351.
- Robertson, *J. K.*, and Findlay, *J. H.*, electrodeless discharge spectra of ionised mercury and of iodine, A., 803.
- Robertson, *J. M.* See Andrew, *J. H.*, and Henderson, *G. G.*

- Robertson, J. McG., and Mair, J. A., oxidation of caoutchouc, B., 419.
- Robertson, (Sir) R., and Fox, J. J., effect of temperature on the refractive index of rock salt, A., 607.
- Robertson, S., deodorising oils and fats, (P.), B., 258.
- Robertson, W. A., kilns for salt glazing, (P.), B., 141.
- Robinson, A., and Simon-Carves, Ltd., coal washeries, (P.), B., 98.
- Robinson, A. See also Simon-Carves, Ltd.
- Robinson, C., and Westinghouse Electric & Manufacturing Co., production of metallic carbon, (P.), B., 769.
- Robinson, C. See also Kruyt, H. R.
- Robinson, C. J. See Robinson & Son, Ltd., T.
- Robinson, C. R., and Robinson Fibre Corporation, treatment [separation of fibres] of paper pulp, (P.), B., 873.
- Robinson, C. S., Huffman, C. F., and Burl, K. L., effect on normal calves of administration of parathyroid extract, A., 796.
- Robinson, E. B. See Lapworth, A.
- Robinson, F. W. See Adam, W. G.
- Robinson, G. W., and Jones, J. O., losses of added phosphate by leaching from North Welsh soils, B., 232.
- losses of phosphoric acid by leaching from upland soils in North Wales, B., 310.
- Robinson, H. R., and Cassie, A. M., secondary and tertiary cathode rays produced by external and internal absorption of homogeneous X-rays, A., 3.
- Robinson, H. W., match-striking composition, (P.), B., 269, 798*.
- Robinson, H. W., and Parkes, D. W., removal of tar acids from ammonia liquor, (P.), B., 39.
- resolution of emulsions or suspensions containing tar or oil, (P.), B., 469.
- Robinson, H. W. See also Butler, T. H.
- Robinson, J. See Gilman, H.
- Robinson, P. H. See Bell, F., and Kenyon, J.
- Robinson, P. L., and Smith, H. C., absolute density and coefficient of expansion of silicon tetrachloride, A., 102.
- Robinson, P. L. See also Briscoe, H. V. A., Mills, H., and Peel, J. B.
- Robinson, R., biochemistry of the sugars, A., 960, 1225.
- Robinson, R., and Thornley, S., 3-methoxy-2-phenylindole and 3-benzamido-2-phenylindole, A., 158.
- Robinson, R., and Zaki, A., feeble activation of certain extended conjugated systems by doubly-bound oxygen, A., 1184.
- 3-hydroxycyclohexylacetolactone, A., 1186.
- Robinson, R. See also Asahina, Y., Clarke, J., Clemo, H. R., Fawcett, R. C., Gulland, J. M., Heap, T., Irvine, F. M., Malan, J., Manske, R. H. F., Martland, M., Oxford, A. E., Perkin, W. H., jun., Pollard, A., Pratt, D. D., and Robertson, A.
- Robinson, R. A. See Carter, S. R.
- Robinson, T. See International Copperclad Co.
- Robinson, T. L., comparative tests on ball-bearing steels, B., 604.
- Robinson, T. W., economic and social development of the American iron and steel industry, B., 753.
- Robinson, W. B. See Bullard, R. H.
- Robinson, W. N. See Robinson & Son, Ltd., T.
- Robinson, W. O., determination of organic matter in soils by means of hydrogen peroxide, B., 535.
- Robinson & Son, Ltd., T., Robinson, C. J., and Robinson, W. N., machinery for separating particles from air by centrifugal action [cyclone separators], (P.), B., 671.
- Robinson Fibre Corporation, treatment of paper pulp stock, (P.), B., 248.
- Robinson Fibre Corporation. See also Robinson, C. R.
- Roborgh, J. A., solubilities of drugs in glycerol, B., 796.
- Robscheit-Robbins, F. S. See Van Slyke, D. D., and Whipple, G. H.
- Rocard, Y., hydrodynamics and the kinetic theory of gases, A., 826.
- Roche, (Mme.) A., and Roche, J., existence of lactacidogen in blood, A., 1214.
- Roche, (Mme.) A. See also Henriques, V.
- Roche, C., and Della Porta, A., carburising [case-hardening] iron, (P.), B., 846.
- Roche, G., salicylsulphonic acid as a protein reagent, A., 1105.
- Roche, J. See Roche, (Mme.) A.
- Rochet, J., and Compagnie de Produits Chimiques et Electro-métallurgiques Alais, Froges, & Camargue, manufacture of hydrogen, (P.), B., 218*.
- Rochow, W. F., and Harbison-Walker Refractories Co., neutral refractory cement, (P.), B., 76.
- Rockstroh, J. See Klemm, W.
- Rockwell, G. E., and Highberger, J. H., necessity of carbon dioxide for the growth of bacteria, yeasts, and moulds, A., 903.
- Rockwell, G. E. See also McLaughlin, G. D.
- Rodd, E. H., and Linch, F. W., reactions of sodium compounds of aromatic ketones. I. Synthesis of triarylcabinols and of triarylmethane dyes, A., 1067.
- reactions of sodium compounds of aromatic ketones. II. Their reaction with methyl and methylene groups and their products of decomposition, A., 1067.
- Rodd, E. H. See also British Dyestuffs Corporation, Ltd.
- Rodde, A. See Société Française des Films Hérault.
- Rode, O. See Fricke, R.
- Rodebush, W. H., effect of velocity distribution on the deflexion of atoms in an inhomogeneous magnetic field, A., 392.
- thermodynamics of non-isothermal systems, A., 419.
- chemical constants and absolute entropy, A., 718.
- Rodebush, W. H., and Coons, C. C., absolute manometer for low pressures, A., 954.
- Rodebush, W. H. See also De Vries, T., and Dixon, A. L.
- Rodenhauser, W. See Friderich, L.
- Rodhe, O., and Svenska Aktiebolaget Mono, continuously-operating apparatus for gas analysis, (P.), B., 898.
- Rodionov, W. M., and Fedorova, A. M., opianic acid, A., 151.
- β -amino- β -aryl-aliphatic acids. II. β -Amino- β -arylisosuccinic ester, A., 451.
- Rodionov, W. M., and Malevinskaja, E. T., preparation of β -aminoaryl-aliphatic acids. I., A., 137.
- Rodis, F. See Brintzinger, H.
- Rodman, C. J., Ford, J. G., and Westinghouse Electric & Manufacturing Corporation, deoxidiser, (P.), B., 166.
- Rodman, C. J., and Westinghouse Electric & Manufacturing Corporation, insulating liquid, (P.), B., 727.
- prevention of acidity in [transformer] oils, (P.), B., 771.
- Rodolico, F., crystallographic investigations on certain heteropoly-compounds, A., 97.
- Rodriguez, J. A. See Coleman, G. H.
- Rodziewicz, K. See Bekier, E.
- Röchling'sche Eisen- & Stahlwerke G.m.b.H., and Kubasta, J., tool steel without brittleness, (P.), B., 337.
- Roeding, G. C. See Beckman, J. W.
- Röhm & Haas, A.-G., process for tanning with metallic salts and salts of silicic acid, (P.), B., 854.
- Röhm & Haas, A.-G. See also Rohm & Haas Co., Inc.
- Röhre, K. See I. G. Farbenind. A.-G.
- Roelofsen, J. A. See Dorman, Long & Co., Ltd.
- Rölz, A. See Zuckerfabrik & Raffinerie Aarberg A.-G.
- Römer, R., and Pink, L., manufacture of sugars from cellulose-containing materials, (P.), B., 24.
- Roerich, A. C., and Moreau, E., removal of gelatin from photographic films, etc., (P.), B., 861.
- Roesch, K., and Werz, W., determination of small amounts of titanium in alloy steels, B., 335.
- Roesner, G. See Ruff, O.
- Roessingh, W., reserves for batik dyeing, (P.), B., 650.
- Rössler, G., technique of photographic spectrophotometry, A., 6.
- Rössler, G. See also Scheibe, G.
- Rössler, H., automatic apparatus for the determination of moisture [by distillation with benzoyl, etc.], B., 895.
- Roessler & Hasslacher Chemical Co., manufacture of alkali monoxide, (P.), B., 187.
- manufacture of sodium monoxide, (P.), B., 218.
- production of amide acid sulphates from nitriles, (P.), B., 348.
- production of esters from amide acid sulphates, (P.), B., 348.
- manufacture of sodium peroxide, (P.), B., 365.
- carbonaceous material and process for making same, (P.), B., 805.
- Roessler & Hasslacher Chemical Co. See also Andrich, K., Carveth, H. R., Lacy, B. S., Lehecke, H., Liebknecht, O., and Muckenfuss, A. M.
- Röthler, H. See György, P.
- Roettgen, T., deacidification of wine by warm storage, B., 24.
- detection of fruit wine in grape wine, B., 24, 826.
- Röttinger, A. C., micro-determination of caffeine in coffee, B., 731.
- Roffo, A. H., and Correa, L. M., existence of insulin-like material in fusocellular sarcoma of white rats, A., 373.
- Roger, R. See McKenzie, A.
- Rogers, B. W., rubber as lining for grinding mills, B., 175.
- Rogers, D. G., and National Aniline & Chemical Co., Inc., production of vat dyestuffs, (P.), B., 102.

- Rogers, F. M., Grimm, F. V., Wendt, G. L., and Standard Oil Co., treatment [purification] of sludge acid, (P.), B., 549.
- Rogers, F. M., Wilson, R. E., and Standard Oil Co., continuous distillation of crude petroleum oils, (P.), B., 210.
- Rogers, H. W. See Corey, R. B.
- Rogers, J. S., composition of commercial chemical lime, B., 874.
- Rogers, T. H., and Miller, C. E., evaluation of turbine oils, B., 355.
- Rogers, W., jun., reduction of mixed oxides; copper and zinc oxides, A., 737.
- Rogers, W. D. See British Dyestuffs Corporation, Ltd.
- Rogerson, H. See Edwards, G. R.
- Roginski, S., and Schalnikov, A., preparation of colloidal solutions, A., 1137.
- Rogoff, J. M., and Stewart, G. N., adrenal insufficiency in dogs. II., A., 71.
- Rogovine, (Mlle.) E. See Wenger, P.
- Rogozinski, F., microchemical determination of nitrates, A., 125*.
- Rohdenburg, G. L. See Blumgarten, A. S.
- Rohland, W., deep cementation by gas and its influence on the core in case-hardened steel, B., 142.
- Rohm & Haas Co., Inc. See Lamb, M. C., Lauter, F., and Pfister, K. H. T.
- Rohmer, A. See Braun, J. von.
- Rohmer, G. E., and Andrews Lead Co., Inc., process for oxidising non-ferrous metals, (P.), B., 195.
- Rohn, W., acid-resisting alloys with a nickel base, B., 111.
effect of annealing in steps on the specific electrical resistance of hard-drawn wires [of iron, nickel, and nickel alloys], B., 487.
metals and alloys for thermocouples for the measurement of high temperatures, B., 680.
- Rohn, W. See also Siemens-Schuckertwerke Ges.m.b.H.
- Rohr, M. See Kehrman, F.
- Roitner, V. See Pisarshevski, L.
- Roitzheim, A., and Remy, W., smelting ores in the absence of air, (P.), B., 338.
furnace for treating zinc ores, (P.), B., 658.
- Rojahn, C. A., and Struffmann, F., identification of pharmaceutically important organic acids and their derivatives, B., 617.
- Roka, K., and Fuchs, O., detection and determination of methyl chloride, A., 984.
- Roka, K. See also Krause, E.
- Rolan, K., specific vibrations of tetrahedral molecules (sulphate ion), A., 10.
- Roll, I. P. See Levene, P. A.
- Roll, F., reactivity of silicon, A., 121.
- Roll, L. J. See Thurber, F. H.
- Rolla, L., and Fernandes, L., element of atomic number 61. II., A., 9.
element 61, A., 31.
element of atomic number 61: florentium [illinium]. III., A., 190, 296*.
florentium or illinium? A., 501, 611.
- Rolla, L., and Piccardi, G., electro-affinity potential of molybdenic anhydride, A., 630.
ionisation potential of terbium, A., 1001.
- Rollefson, G. See Franck, J.
- Roller, D., space charge in electrolytes, A., 832.
effect of the concentration gradient on the electric field in a conducting electrolyte, A., 832.
- Rollet, A. P., behaviour of various metals (as electrodes) in the electrolysis of water by alternating current, A., 946.
- Rollett, A., β -amyrin from *Manila elemi* resin. IV., A., 248.
- Rollett, A., and Bayer, L., constitution of furopyrene, A., 240.
- Romagnoli, E. See Saccardi, P.
- Romani, B. See Mazzucchelli, A.
- Romanoff, S. See Lindemann, H.
- Romberg, A., and Blau, J. W., hygrometer, A., 128.
- Romburgh, P. van, decomposition of pentaerythrityl tetraformate by heat, A., 1166.
- Romeo, G., and Giuffrè, U., essential oils of *Mentha aquatica* and *M. sylvestris* from Sicily, B., 316.
essential oils of *Calamintha nepeta* and *Mentha pulegium*, B., 316.
- Romero, A. See Schwarz, R.
- Romieu, M., reaction of iodine with lecithin, A., 686.
- Romieux, C. J. See Novotny, E. E.
- Rona, P., and Ammon, R., stereochemical specificity of lipases; effect of poisons on fat-splitting enzymes, A., 377.
- Rona, P., and Chrometzka, F., enzymic synthesis of protein, A., 1220.
- Rona, P., and Iwasaki, K., glycolysis. VII. Distribution of phosphorus in the blood, A., 689.
- Rona, P., and Kleinmann, H., nephelometric determination of trypsin, A., 76.
- Rona, P., and Mislowitz, E., autolysis. VI., A., 590.
- Rona, P., Nachmansohn, D., and Nicolai, H. W., enzymic metabolism of bacteria. IV. Application of the biological determination of dextrose, A., 994.
- Rona, P., and Nicolai, H. W., poisonous action of quinine compounds on the power of fermentation of living yeast, A., 1222.
- Ronzoni, E., and Wallen-Lawrence, Z., determination of lactic acid in blood, A., 985.
- Rooksby, H. P. See Hyslop, J. F., and Smithells, C. J.
- Roos, G., refrigerating apparatus, (P.), B., 512.
- Roos, H. See Dimroth, O.
- Ropes, M. W. See Bauer, W.
- Ropp Tin, Ltd. See Cothay, F. H.
- Rosa, J. T., chemical changes accompanying tuberisation in potato, A., 284.
- Rosbaud, P. See Hauser, E. A.
- Roscoe, C., machines for crushing ores, stone, rock, etc., (P.), B., 545.
- Roscoe, M. H., antirachitic value of fresh spinach, A., 381.
- Roscoe, M. H. See also Chick, H.
- Roscow, J., weighting silk, (P.), B., 9.
- Rose, A. R. See Sherwin, C. P.
- Rose, E. S., determination of fat in malted milk, B., 91.
- Rose, H. J., selection of coals for the manufacture of coke, B., 242.
- Rose, J. R., and Carbo-Hydrogen Co. of America, gas for cutting and welding purposes, (P.), B., 726, 769.
- Rose, J. R. See also Harris, J.
- Rosecrans, C. Z., mechanism of explosive reactions, A., 318.
automatic recording device for carbon dioxide in air from 0 to 3.5%, B., 710.
- Rosedale, J. L. See Plimmer, R. H. A.
- Rosen, B., resonance, fluorescence, and absorption spectra in group VI of the periodic system, A., 608.
- Rosen, B. See also Pringsheim, H.
- Rosen, E. See Pringsheim, P.
- Rosenbaum, E., production of bread, (P.), B., 503.
- Rosenbaum, E. See also Dietzel, R.
- Rosenberg, A. See Scheibe, G.
- Rosenberg, L. See Feigl, F., and Lytle, J. D.
- Rosenberg, (Mlle.) M., hydrogen ions as a factor in lowering the order of a reaction, A., 524.
- Rosenblüh, E. See Zellner, J.
- Rosenblum, S., retardation of α -particles by matter, A., 1120.
- Rosenbohm, A. See Bierich, R.
- Rosenorants, F. H. See International Combustion, Ltd.
- Rosener, H. B. See Allen, C. F. H.
- Rosenfeld, A. See Rakuzin, M. A.
- Rosenhain, W., alloys of iron research, B., 444.
structure and constitution of glass, B., 556.
- Rosenhain, W., and Hanson, D., behaviour of mild steel under prolonged stress at 300°, B., 968.
- Rosenhain, W., and Murphy, A. J., metallography of solid mercury and amalgams, A., 9.
- Rosenhauer, E., and Feilner, A., [constitution of the dyes from 2-methylated indolenine salts and phenylhydrazine], A., 62.
- Rosenheim, A., and Thon, S., formation of complexes by the arsenate anion, A., 1156.
- Rosenheim, O., some sterol colour reactions in their relation to vitamin-A, A., 486.
- Rosenheim, O., and Webster, T. A., nature of Fearon's colour reaction and its non-specificity for vitamin-A, A., 78.
antirachitic action of irradiated sawdust, A., 79.
stomach oil of the Fulmar petrel (*Fulmarus glacialis*), A., 271.
relation of cholesterol to vitamin-D, A., 381.
parent substance of vitamin-D, A., 487.
photochemical production of vitamin-D from ergosterol, A., 1224.
sources of supply of vitamin-A and -D, B., 857.
- Rosenheim, O. See also Dudley, H. W.
- Rösemund, K. W., Nothnagel, M., and Riesenfeldt, H., isoquinoline series and synthesis of papaverine, A., 367.

- Rosenmund, K. W., and Schulz, Hermann, phenolic ketones and the Behn ketone synthesis, A., 667.
 Rosenqvist, T. See Hägglund, E.
 Rosenstein, L., removing sulphur dioxide and compounds from food products, (P.), B., 457.
 Rosenstein, L., and Great Western Electro-Chemical Co., method of producing alkali-metal xanthates, (P.), B., 108*.
 Rosenthal, F., Wislicki, L., and Pommernelle, H., decomposition of bile acids in the organism, A., 791.
 Rosenthal, G. See Zetzsche, F.
 Rosenthal, L. See I. G. Farbenind. A.-G.
 Rosenthal, W. See Borsche, W.
 Rosenthaler, L., microchemical analysis. V. Delicate reaction of sulphites, A., 330.
 mustard oils. II. [Reactions with semicarbazide and piperazine], A., 451.
 aniline-calcium hypochlorite reaction, A., 552.
 oxidation of cinnamic acid, A., 560.
 Reinecke's salt as a microchemical reagent for alkaloïds, A., 684.
 iodometric determination of arsenic acid, A., 745.
 Rosenzweig, F., process for recovering metals from slag, (P.), B., 970.
 Roseveare, W. E., and Buehrer, T. F., preparation and analysis of pure auric oxide, A., 636.
 Roseveare, W. E. See also Buehrer, T. F.
 Rosewarne, P. V., examination of lubricating oil [after use in automobile engines], B., 5.
 Roshdestvenski, I. G., production of available phosphates from Isume phosphorite, B., 950.
 Rosin, J. See Collins, W. D.
 Rosner, L., comparison of qualities of asphalts of German and Mexican origins, B., 721.
 Rosnowski, M. See Arnaudi, C., and Kopaczewski, W.
 Ross, A., absorption spectra of pyrone derivatives in the near infra-red, A., 90.
 Ross, D. W., wearing away of tank blocks, B., 581.
 Ross, H. C., Marris, H. C., and Walker, W., & Sons, Ltd., process of removing hair from hides or skins, (P.), B., 86*.
 Ross, J. See Farmer, E. H.
 Ross, J. D. See Normand, A. R.
 Ross, J. D. M., and Somerville, I. C., m. p. curves of optical isomerides in the camphor series, A., 12.
 Ross, N. A., removal of tar fog from coal gas, B., 513.
 determination of the porosity of coke, B., 802.
 Ross, W. H., and Mehring, A. L., simultaneous recovery of nitric oxide, and the production of alkali nitrate and hydrochloric acid, (P.), B., 43.
 Rossée, and Morgenstern, F. von, Tödt's simplified colorimetric method for measuring the hydrogen-ion concentration of small quantities of strongly coloured or turbid liquids, A., 533.
 Rossem, A. van, and Meyden, H. van der, lamp-black in rubber, B., 635.
 Rossi, A. See Mazzucchelli, A.
 Rossi, G., coagulation of colloidal sulphur solutions, A., 935.
 condensation of anthranilic acid with allylthiocarbimide, A., 1207.
 philothion. II, A., 1221.
 Rossi, G., and Bocchi, C., colloidal organomercuric compounds, A., 165.
 Rossi, G., and Marescotti, A., action exerted on colloidal solutions by electrolytes added in quantities below the minima necessary to produce coagulation, A., 513.
 Rossi, G., and Marzari, M., colloidal solutions of ferric ferrocyanide, A., 622.
 Rossi, G., and Osti, V., stabilising ions and their adsorption, A., 107.
 Rossi, L., application of hydrolysis to the study of differential analytical reactions, A., 125.
 Rossi, L. M., and Bakelite Corporation, making a phenolic resin varnish, (P.), B., 228.
 Rossiter, E. C. See British Cyanides Co., Ltd.
 Rossner, E. See Abderhalden, E.
 Rost & Co., C. E., apparatus for drying soaps, (P.), B., 258.
 Rostock, P., isolation of diastase from human urine, A., 1111.
 Roth, E. L., effect of heat treatment on the combined carbon in grey cast iron, B., 751.
 Roth, H., [volumetric] determination of sulphates, A., 125.
 Roth, H. See also Kremann, R.
 Roth, J. F. See Wöhler, L.
 Roth, W. A., differential potentiometric titration, A., 533.
 calorimetry at high temperatures and methods for determination of mean specific heat between high and ordinary temperatures, A., 733.
 Roth, W. A., and Doepke, O., heats of combustion of the different varieties of lustre carbon; existence of amorphous carbon, A., 315.
 Roth, W. A., and Müller, F., thermal investigation of certain olefinic and acetylenic derivatives, A., 441.
 Rothen, A. See Briner, E.
 Rothert, C., and Dern, G., nickel-silver alloys, B., 681.
 Rothmann, A., Stein, H., and Boehringer & Soehne, C. F., purification of bisalkylxanthens, (P.), B., 429*.
 Rothmann, A. See also Boehringer & Soehne, C. F.
 Rothschild, S. See Cantzler, A.
 Rothstein, E., and Shoppee, C. W., ring-chain tautomerism. XV. Hydroxy-lactone type, A., 447.
 Rothwell, C. S., determination of calcium in oxalated whole blood, A., 985.
 determination of calcium in human milk, A., 1216.
 Rotter, R., condensations of unsaturated compounds with diazomethane, A., 162.
 condensations of unsaturated substances with diazomethane. II. Condensation of diazomethane with carbon disulphide and xyloquinone, A., 247.
 Roubard, E. C. C., and Veillon, R. A., product for destroying mosquito larvae, (P.), B., 382.
 Rouchelmann, N. See Fosse, R.
 Roucka, E., arrangement for the accurate control of cooling, especially in furnaces, (P.), B., 545.
 Roughton, F. J. W. See Hartridge, H.
 Rouiller, C. A. See Abel, J. J.
 Rouilleux, M., heat transfer alinoment charts, B., 319.
 Roumazielles, M. J. P. See Girard, A. E. P.
 Rourke, (Miss) M. D. See Gerke, R. H.
 Rouse, E. W., and Aubel, P. K., analyses of copper-refining cell voltages, B., 631.
 Rousseau, E., special action of radiations from a mercury arc, A., 429.
 photochemical action of the mercury-vapour arc on a formaldehydic liquid covered with olive oil, A., 528.
 Rousseau, E. See also Andant, A.
 Rousseau, G., photographic process, (P.), B., 829.
 Rousseau, M., experiments on olive oil at Ghaba, B., 754.
 Rousseau, (Mlle.) S. See Javillier, M.
 Roussel, J., manufacture of hollow artificial textile fibres, (P.), B., 361.
 Routala, O., and Jäättelä, A. V., adsorption of malodorous substances formed during the manufacture of sulphate-cellulose, B., 40.
 Routala, O., and Sevón, J., cellulose from nettles, B., 184.
 Routala, O. See also Pringsheim, H.
 Roux, A., control of soldered joints by magnetic spectra, B., 911.
 Roux, A. See also Guillet, L.
 Rouyer, E. See Bourion, F.
 Rowe, F. M., and Bean, C. P., progress in the application of vat dyes, B., 362.
 Rowe, F. M., and Levin, E., action of nitrous acid on *ar*-tetrahydro- α -naphthol and on 5:8- and 5:6(or 7:8)-dihydro- α -naphthols, A., 354.
 Rowe, F. M. See also Bryans, F.
 Rowe, H., vapour pressures of the alkali metals, A., 302.
 Rowe, L. W., colorimetric assay of strophanthus, B., 346.
 colorimetric assay of digitalis, B., 617.
 Rowe, M., petroleum still, (P.), B., 162.
 Rowe & Co., Ltd., T. B. See Charlton, A. H.
 Rowell, S. W. See Hume-Rothery, W.
 Rowland, H. R., and C. & C. Developing Co., electrical treatment [cracking] of gases and vapours [hydrocarbons], (P.), B., 67.
 Rowland, S. A. See Bain, J. W.
 Rowntree, L. G. See Greene, C. H.
 Rowntree & Co., Ltd. See Baker, G. R., and Fernbach, A.
 Rowse, L. H., optical constants of single-crystal bismuth, A., 1126.
 Rowse, L. H. See also Dix, F. E.
 Roy, A. C., determination of minute quantities of quinine in the blood, A., 371.
 Roy, B. C. See Mukherjee, J. N.
 Roy, S. C., absorptivity [of radiation] of stellar material A., 495.
 Royen, H. J. van, analysis of refractory materials. I, B., 877.

- Royer, *E. E.*, process and apparatus for devulcanising rubber, (P.), B., 372.
- Royster, *P. H.* See Joseph, *T. L.*
- Rozansky, *D.*, ferromagnetism of nickel and the quantum state of the atom, A., 84.
- Rozhkova, *L. V.* See Silbernitz, *V. A.*
- Rozinek, *A.* See Szikla, *G.*
- Ruark, *A. E.*, effect of intense light on the energy levels of atoms, A., 290.
- Ruark, *A. E.*, Foote, *P. D.*, Rudnick, *P.*, and Chenault, *R. L.*, spectra excited by active nitrogen, A., 395.
- Rubber Latex Research Corporation, production of rubber articles, (P.), B., 790.
- Rubber Latex Research Corporation. See also Wescott, *B.*
- Rubber Service Laboratories Co., North, *C. O.*, and Christensen, *C. W.*, vulcanisation of rubber, (P.), B., 393.
- Rubber Service Laboratories Co. See also North, *C. O.*, and Scott, *W.*
- Ruben, *R.* See Ruben, Ltd., *R.*
- Ruben, Ltd., *R.*, and Ruben, *R.*, devices for intimately mixing, churning, or agitating liquids, (P.), B., 832.
- Ruben, *S.*, determining and indicating the electrical conductivity of fluids, (P.), B., 17.
- Rubenbauer, *H.* See Kraut, *H.*
- Rubin, *B.* See Salkind, *J. S.*
- Rubinstein, *A. M.* See Terentiev, *A. P.*
- Rubinstein, *D. L.*, action of physiologically equilibrated salt solutions, A., 375.
- Rubinstein, *H.*, and Solt & Kronstein, sodium magnesium carbonate, (P.), B., 188.
- Rubinstein, *H.* See also Epstein, *E.*
- Rubli, *H.* See Shoesmith, *J. B.*
- Rublov, *S. G.* See Burkser, *E. S.*
- Rubner, *M.*, and Schittenhelm, *A.*, nutritive value of malt, A., 374.
- Ruby, *A.*, rate of the disinfecting reaction in the cooking of wood by the soda process, B., 103.
- Ruchhoff, *C. C.*, comparative studies of standard methods and the brilliant-green-bile medium on Lake Michigan water at Chicago, B., 205.
- Ruckdeschel, *H.* See Windisch, *W.*
- Rueker, *W. L.* See MacDonald, *J. W.*
- Rudberg, *E.*, energy of photo-electrons produced by soft X-rays, A., 492.
- Ruder, *W. E.*, and General Electric Co., alloy, (P.), B., 561*.
- treatment of magnetic material; [improving the magnetic properties of alloy steel sheets], (P.), B., 942.
- Rudnick, *P.* See Ruark, *A. E.*, and Watson, *W. W.*
- Rudolf, *F. A.* See Zieley, *J. D.*
- Rudolfs, *W.*, chemical changes during the life cycle of the tent caterpillar (*Malacosoma americana*, Fab.). I. Moisture and fat. II. Nitrogen and its relation to moisture and fat, A., 1218.
- effect of temperature on sewage sludge digestion, B., 270.
- Rudolph, *J.* See Sauerwald, *F.*
- Rudolph, *W.* See Goy.
- Rudy, *R.*, active nitrogen, A., 1147.
- Rüdiger, *M.*, and Diemair, *W.*, detection of fruit wine in grape wine, B., 666.
- Ruedy, *R.* See McLennan, *J. C.*
- Ruegg, *K.*, decomposition of salt solutions by "galvanocolloidal" metal hydroxides, A., 414.
- Rülke, *K.* See Rhenania Verein Chemische Fabriken Akt.-Ges.
- Rüping, *H.* See Jantsch, *G.*
- Ruer, *R.*, magnetic transitions of ferromagnetic metals, A., 925.
- miscibility-gap in molten iron-copper alloys, A., 928.
- Ruer, *R.*, and Kuschmann, *J.*, reduction of weights of powders in air to weights in a vacuum. II., A., 1134.
- Rüsborg, *F.* See Rhenania-Kunheim Verein Chemische Fabriken Akt.-Ges. and Rhenania Verein Chemische Fabriken Akt.-Ges.
- Rüter, *R.* See Hirsch, *P.*
- Rütgerswerke Akt.-Ges., wood preservative, (P.), B., 909.
- Rütgerswerke Akt.-Ges., and Kahl, *L.*, treatment of charcoal, (P.), B., 244.
- Ruff, *O.*, adsorption at solid surfaces. II. Specific and unspecific, particularly with regard to charcoal, A., 305.
- method for producing synthetic precious stones, (P.), B., 108*.
- Ruff, *O.*, and Korschak, *M.*, high-temperature investigations, A., 102.
- Ruff, *O.*, and Mautner, *P.*, active forms of silicic acid (silica gel) and their adsorptive powers, B., 363.
- Ruff, *O.*, Mautner, *P.*, and Ebert, *F.*, amorphous carbon or graphite? A., 1138.
- Ruff, *O.*, Niese, *G.*, and Thomas, *F.*, dependence of surface tension on electric charge, A., 402.
- behaviour of drops and drop-electrodes in high electrical fields, A., 402.
- Ruff, *O.*, and Roesner, *G.*, adsorption at solid surfaces. I. Adsorption of gases by activated and non-activated charcoals, A., 305.
- Ruggli, *P.*, and Jenny, *A.*, acenaphthene derivatives, A., 461.
- Ruggli, *P.*, and Peyer, *E.*, acetylene derivatives. VI. 2:2'-Disulphonic acids of the stilbene, tolane, and deoxybenzoin series, A., 47.
- Ruhemann, *S.* See Hertenberg, *J.*
- Ruhland, *M.*, influence of oxygen, hydrogen, and nitrogen present in coke and of the admixture of distillation gases in the representation of producer gas by a gasification diagram, B., 691.
- Ruhle, *G. C.* See Hildebrand, *J. H.*
- Rukonić, *G.* See Kranjčević, *M.*
- Rule, *H. G.*, optical activity and the polarity of substituent groups. VI. Optically active acids and bases, A., 233.
- Rule, *H. G.*, and Bretscher, *E.*, 2-methoxydiphenyl-2'-carboxylic acid and its demethylation with thionyl chloride, A., 561.
- Rule, *H. G.*, and Mitchell, *R. K. S.*, optical activity and the polarity of substituent groups. V. sec- β -Octyl esters of some substituted acetic acids and their behaviour towards solvents, A., 132.
- Rump, *W.*, direct measurement of X-ray energy, A., 706.
- Rump, *W.* See also Warburg, *E.*
- Rumpf, *E.*, lattice constant of calcium sulphide- and strontium sulphide-samarium mixed phosphors, A., 1125.
- Rumseheidt, *C.* See Bredt-Savelsberg, *M.*
- Rumsey, *H. S.* See Gilchrist & Co., and Graham, *W. C.*
- Runejelm, *D.* See Euler, *H. von.*
- Rung, *F.* See Kappen, *H.*
- Runge, *W.* See International Combustion Engineering Corporation.
- Runkel, *R.*, producing halfstuffs and cellulose from vegetable fibres [peat], (P.), B., 9.
- Runne, *E.* See Thiess, *K.*
- Rupe, *H.*, manufacture of unsaturated aldehydes, (P.), B., 571.
- Rupe, *H.*, and Apotheker, *K.*, derivatives of isatin and 4-nitroisatin, A., 61.
- Rupe, *H.*, and Heckendorff, *A.*, catalytic reduction of cyanogen compounds, A., 61.
- Rupe, *H.*, and Knup, *E.*, hydroxymethylene-aldehydes. I. Hydroxymethylenephénylacetaldhyde, A., 564.
- Rupe, *H.*, and Schütz, *F.*, synthesis of a higher homologue of curcume and a ketodimethyltetrahydronaphthalene, A., 58.
- Rupe, *H.*, and Wieland, *H.*, catalytic reduction of hydroxymethylenhydrindone and its condensation with phenylhydroxylamine, A., 57.
- Rupp, *E.*, polarisation of the glow from canal rays. I. and II., A., 292, 1002.
- charged state of atoms before light emission, A., 1002.
- Rupp, *E.*, and Gersch, *H.*, hydrargyrum salicylicum; [derivatives of *o*- and *p*-anhydrohydroxymercursalicylic acids], A., 685.
- Rupp, *E.* See also Pohl, *R.*
- Ruppel, *E.* See Colin, *H.*
- Rupprecht, *M.* See Neumann, *B.*
- Ruschmann, *G.*, comparative biological investigation of stable manure and "super" manure, B., 395.
- Rush, *R. I.* See Patrick, *W. A.*
- Rushbrooke, *J. E.* See Garner, *W. E.*
- Rushton, *E. R.*, production of arsenic compounds, (P.), B., 629.
- Rushton, *J. L.*, artificial silk spinning machines, (P.), B., 139, 811.
- manufacture of artificial silk, etc., (P.), B., 248.
- Rushton, *J. L.*, and Hill, *H.*, artificial silk spinning machines, (P.), B., 329.
- Rushton, *J. L.*, and Lever, *J.*, artificial silk spinning machines, (P.), B., 329.
- Russell, *A.* See Flow Coal Washery Co., Ltd.
- Russell, *A. S.*, actinium series and the order of stability of radioactive isotopes, A., 1002.
- radioactive halos; possible identification of "hibernium," A., 1003.
- Russell, (*Sir*) *E. J.*, influence of soil, season, and manuring on the quality and growth of barley. IV., B., 310.
- Russell, *H. N.*, multiplets in the spark spectrum of iron, A., 490.
- calculation of the spectroscopic terms derived from equivalent electrons, A., 705.

- Russell, J., and Sullivan, W. E., molecular combination and molecular volumes of mixtures of ether and hydrogen bromide, A., 507.
- Russell, R. P., Chappell, E. L., and White, A., effect of velocity on corrosion of steel under water, B., 192.
- Russell, R. P., and White, A., effect of oxygen concentration on the corrosion of copper by non-oxidising acids, B., 193.
- Russell, S. See McClelland, J. F.
- Russell-Wells, B. See Haas, P.
- Rust, C. A. See McNally, W. D.
- Rustproof Processes, Ltd., and Trouton, M., apparatus for sherardising metal articles, (P.), B., 528.
- Rutherford, E. D. See Hydraulic Engineering Co., Ltd.
- Rutherford, (Sir) E., atomic nuclei and their transformations, A., 710.
- structure of the radioactive atom and origin of the α -rays, A., 1002.
- Rutherford, (Sir) E., and Chadwick, J., scattering of α -particles by helium, A., 1003.
- Ruthsatz. See Brauer.
- Ruthven, R. H., corrosion, B., 111.
- Rutovski, B. N., and Leonov, P. P., oil of turmeric, B., 172.
- Rutovski, B. N., and Vinogradova, I. V., oil from the leaves and flowers of *Dictamnus fraxinella*, Pers., B., 172.
- Rutschkin, W., fruits of Siberian cedar and the cedar oil, B., 915.
- Ruzicka, L., carbon rings. VIII. Constitution of muscone, A., 57.
- Ruzicka, L. [with Steiger, R., and Stoll, U.], methylpolymethylenedicarboxylic acids connected with the investigation of muscone. I. Syntheses from citronellal. II. Synthesis of β -methyltridecane- α -dicarboxylic acid, A., 1170.
- Ruzicka, L., and Capato, E., higher terpene compounds. XXX. Constitution of eudesmol, A., 569.
- Ruzicka, L., and Naef & Co., M., manufacture of *dl*-nerolidol, (P.), B., 860*.
- Ruzicka, L., Schinz, H., and Seidel, C. F., carbon rings. IX. Degradation of civetone, civetol, and civetane, A., 1189.
- Ruzicka, L., Steiger, R., and Schinz, H., higher terpene compounds. XXIX., A., 60.
- Ruziczka, W. See Margosches, B. M.
- Ryan, H. See O'Donoghue, B.
- Ryde, J. W., and Yates, D. E., opal glasses, B., 11.
- Rydstrom, C. L. See Pearce, W. T.
- Rys, L., bleaching of sulphite-cellulose: influence of chlorates, B., 9.
- control of the manufacture of bleach liquors, B., 187.
- Ryselberge, M. van, 1:2-dimethylcyclopentane compounds, A., 47*.
- S.
- S. E. Co. See Davis, D. J. L.
- S. I. P. Soc. Italiana Potassa, separating aluminium nitrate from mixed solutions of potassium, sodium, iron, calcium, and magnesium nitrates, (P.), B., 75.
- Sabalitschka, T., sorption of hydrogen by palladium on various carriers, A., 821.
- preservation of food for men or animals, (P.), B., 457*.
- Sabalitschka, T., and Böhm, E., preservation of gelatin emulsions, B., 453.
- Sabalitschka, T., and Moses, W., influence of the adsorptive power of the carrier on the catalytic activity of metal-carrier catalysts, A., 427.
- Sabalitschka, T., and Wiese, A., translocation of potassium before and during the death of leaves of *Populus nigra* (black poplar) and *Hedera helix* (ivy) in autumn, B., 55.
- Sabatelli, V. See Bigiavi, D.
- Sabatier, P., inversion of the rôle of catalysts, A., 737.
- Sabatier, P., and Fernandez, A., dehydrogenations and hydrogenerations catalysed by metallic oxides, A., 866.
- Sabetay, S., pyridine content of glucophosphates prepared by the pyridine method, A., 539.
- Sabetay, S. See also Fournneau, E.
- Sabewa, V. See Tröger, J.
- Saccardi, P., and Romagnoli, E., new compounds of camphor with amines, A., 1196.
- Saccharin-Fabr. A.-G., and Klages, A., preserving seeds from attack by pests, (P.), B., 792.
- Sachanen. See Sachanov.
- Sachanov, A., petroleum oils of Grozny, B., 271.
- Sachanov, A., and Tilitschev, M., cracking process, B., 576.
- Sachs, G., detection of internal stress in [brass] rods and tubes, B., 845.
- Sachs, G., and Ott, M., preparation and analysis of methylation products of thiosalicylic (α -thiolbenzoic) acid, A., 243.
- Sachs, G. See also Göler, (Freiherr) von, and Karnop, R.
- Sachs, J. H., and Du Pont de Nemours & Co., E. I., manufacture of *N*-dihydro-1:2:1':2'-anthraquinoneazine, (P.), B., 870.
- Sachs, O., and Riemer, K., actin and dichromate methods [for glycerin analysis], B., 49.
- Sachse, J., absorption of nutrients by plants from finely-ground basalt, B., 759.
- Sack, H., dielectric constants of dilute solutions of electrolytes, A., 409.
- Sacks, J., effect of adrenaline on phosphorus partition in muscle, A., 994.
- Sadikov, V. S., types of linking in the protein molecule, A., 368.
- collagen-dissolving enzyme (collagenase), A., 377.
- new compound obtained by the catalytic decomposition of collagen, A., 754.
- action of electric current on proteins and enzymes, A., 1222.
- characteristics of hide- and sinew-collagen and their behaviour towards ferments, B., 53.
- possibility of use of sinew-collagen for the determination of tannin in tanning extracts, B., 394.
- Sadikov, V. S., and Mikhailov, A. K., catalytic hydrogenation of pyridine, A., 253.
- Sadler, H. See Suida, H.
- Sadler, W., production of a "caramel" odour and flavour in dairy products by *Streptococcus lactis*, Lister, B., 425.
- Sadolin, E., dependence of the degree of hydrolysis of cocaine on hydrogen-ion concentration, A., 264.
- solubility of lanthanum hydroxide, A., 304.
- Sägebarth, B., comparison of the economics of the boiler and rotary furnace processes for burning quick-setting plaster of Paris, B., 815.
- Saegusa, H., thermionic theory of the electrical conductivity of dielectrics, A., 293.
- Saenger, G. See Burchartz, H.
- Sänger, R., dielectric constants of ethyl ether and ethyl alcohol vapours, A., 713.
- Säureschutz Ges.m.b.H., coating vessels, etc., to render them chemically stable, (P.), B., 147.
- Saffy, J. F., influence of prolonged heating on resilience of some exhaust-valve metals, B., 79.
- Sagaidatchni, A., and Ravitch, M., colorimetric determination of iron, A., 437.
- Sagari, J. See Komori, Y.
- Sagi, E., and Chemosan A.-G., production of solutions of mercury derivatives of hydroxysulphobenzoic acids, (P.), B., 173*.
- Sagstetter, K., and Heiler, C. B., desulphurising chemical solutions and precipitates, (P.), B., 188.
- Sab, P. P. T. See Schuette, H. A.
- Saha, J. M. See Chakravarti, G. C.
- Saha, M. N., detailed explanation of spectra of metals of the second group, A., 705.
- spectrum of neon, A., 802.
- new scheme for atom-building, A., 807.
- Saha, M. N., and Ray, B. B., the Main Smith-Stoner scheme of atomic orbits, A., 394.
- Saha, M. N., Sur, N. K., and Mazumdar, K., experimental evidence of the thermal ionisation of elements, A., 180.
- Saha, M. N. See also Kichlu, P. K.
- Sahashi, Y., effect of 2:6-dihydroxyquinoline obtained from the β -acid of crude oryzanin on the polyneuritis of pigeons, A., 487.
- synthesis of " β " acid (2:6-dihydroxyquinoline-4-carboxylic acid) obtained from crude "oryzanin" by hydrolysis, A., 1086.
- Sahyun, M. See Blatherwick, N. R.
- Saillard, E., coloration of sugar products, B., 395.
- Saint, S. J., reaction between soils and hydroxide solutions, B., 309.
- St. John, A., technical uses of X-rays, B., 543.
- St. John, A., and Union Carbide & Carbon Research Laboratories, Inc., X-ray filter, (P.), B., 529.
- St. John, C. E., revision of Rowland's preliminary tables of solar spectrum wave-lengths, A., 997.
- St. John, E. Q. See Hepburn, J. S.

- Saitô, *H.*, thermobalance analysis of the change in various compounds heated in different gases, A., 629.
- Sakaguchi, *S.* See Kohmoto, *T.*
- Sakakura, *Y.*, [double] incandescence lamp, (P.), B., 196*.
- Sakamura, *T.* See Kuwada, *Y.*
- Sakellarios, *E.*, carboxydiphenylarsinic acids. I. *o*-Carboxydiphenylarsinic acid, A., 64.
- acetylation of aniline in anhydrous glycerol, A., 235.
- Saklatwalla, *B. D.*, manufacture of alloy steels, (P.), B., 195*.
- manufacture of alloy steel and iron, (P.), B., 337.
- manufacture of chromium-iron alloys, (P.), B., 448.
- Sakom, *D.* See Akt.-Ges. für Chemische Produkte vorm. H. Scheidemandel.
- Saks, *V.* See Filtrators, Ltd.
- Sakurada, *H.* See Yoshimatsu, *S.*
- Sakurada, *I.* See Kita, *G.*
- Sakurada, *K.* See Kita, *G.*
- Sakurada, *Y.*, carbolthionic acids and esters. II., A., 133.
- carbolthionic acids and esters. III. Carbitronic acids and esters, A., 134.
- Sakurai, *T.*, influence of parasympathetic poisons on blood-sugar. I. Problem of the parasympathetic hyperglycemia, A., 171.
- influence of parasympathetic poisons on blood-sugar. II. Effect of eserine and pilocarpine on adrenaline hyperglycemia. III. Lowering of the blood-sugar level through parasympathetic stimulation, A., 589.
- Salamon, *M. S.*, detection and determination of lauric esters, B., 267.
- Salant, *E. O.*, absorption bands of liquid and vapour amines, A., 711.
- Salaquarda, *F.* See Heinrichs, *H.*
- Sale, *J. W.*, and Wilson, *J. B.*, distribution of volatile flavour in grapes and grape-juices, B., 25.
- Sale, *J. W.*, Wilson, *J. B.*, and United States, manufacture of a true maple flavouring product, (P.), B., 921.
- Salerno, Ltd., and Salerni, *E. M.*, distillation or heat treatment of carbonaceous or like materials, (P.), B., 694.
- Salerni, *E. M.* See Salerno, Ltd.
- Salge, *W.* See Tammann, *G.*
- Salis, *A. von.* See Kehrman, *F.*
- Salisbury, *O. J.*, continuous [bleaching] treatment of oils, (P.), B., 628.
- Salkin, *B.*, determination of phosphorus in phosphorus alloys, B., 414.
- Salkind, *J. S.*, formation of geometrical isomerides by the reduction of acetylenic glycols, A., 643.
- Salkind, *J. S.*, and Iljin, *N. W.*, addition of hydrogen to acetylene derivatives. XVII. Hydrogenation of toluene, A., 453.
- Salkind, *J. S.*, and Komarovskaja, *E.*, an erythritol of the acetylenic series, A., 226.
- Salkind, *J. S.*, and Kruglov, *A. A.*, action of halogen acids on acetylenic glycols. III. Hydrobromic acid and $\alpha\beta$ -diphenyl- $\Delta\beta$ -butinene- $\alpha\delta$ -diol, A., 443.
- Salkind, *J. S.*, and Outkina, *O.*, action of hydrobromic acid on diphenyldimethylbutenediol, A., 872.
- Salkind, *J. S.*, Rubin, *B.*, and Kruglov, *A. A.*, action of halogen acids on acetylenic glycols. II. Hydriodic acid and β -dimethyl- Δ^{γ} -hexinene- $\beta\epsilon$ -diol, A., 443.
- Salkind, *J. S.*, and Sigova, *M. P.*, action of halogen acids on acetylenic glycols. I. Hydrobromic acid and β -dimethyl- Δ^{γ} -hexinene- $\beta\epsilon$ -diol, A., 443.
- Salles, *M.* See Chevrier, *D.*
- Salles, *P. M. R.*, process and apparatus for electrolytically sterilising water, (P.), B., 574.
- Sallmann, *G. A.*, production of a smooth, dull surface in dyed textile fabrics, (P.), B., 249.
- Salmang, *H.*, effect of grain-size of fluxes and of non-plastic materials on the cone melting point of clays, B., 410.
- causes of plasticity of clay, B., 602.
- Salminen, *A.* See Aarnio, *B.*
- Salmon, *L. G.* See Siemens Brothers & Co., Ltd.
- Salmon, *W.* See United Yeast Co., Ltd.
- Salmon, *W. D.*, existence of two active factors in vitamin-B complex, A., 796.
- Salmon-Legagneur, *F.*, mononitriles of camphoric acid, A., 1081.
- Salmon-Legagneur, *F.* See also Ramart, (*Mme.*) *P.*
- Salomon, *H.* See Karrer, *P.*
- Salomon, *J.* See Hackspill, *L.*
- Salomon, *K.*, micro-determination of blood-sugar, A., 68.
- Salsbery, *C. E.* See Jensen, *H.*
- Salt, *H.*, leather dyeing. V and VI., B., 260, 343.
- Salter, *F. J.*, chemical composition of soil organic matter as related to its effectiveness, B., 951.
- Salvaterra, *H.* See Suida, *H.*
- Salvesen, *H. A.* See Hastings, *A. B.*
- Salvesen, *J. R.* See Hassel, *O.*
- Salzer, *F.*, electrolytic deposition of chromium, B., 753.
- Salzmann, *R.* See Pietet, *A.*
- Salzwedel, *E.*, influence of lighting the cathode with ultra-violet light on the self-dependent glow discharge, A., 293.
- Salzwerk Heilbronn Akt.-Ges., Lichtenberger, *T.*, and Flor, *K.*, obtaining sulphur from alkaline-earth sulphates, (P.), B., 75, 107, 653.
- Samdahl, See Volmar.
- Samee, *M.*, plant colloids. XVII. Peptisation of starch by ultra-violet light, A., 412.
- plant colloids. XIX. Starch dextrins, A., 995.
- Samec, *M.* [with Guzel], *L.*, Kaveč, *J.*, and Kline, *L.*, plant colloids. XVIII. Wheat starch, A., 908.
- Samec, *M.*, and Ribarić, *I.*, colloid chemical investigation of sulphite lye. III. Fractions obtained by electro-dialysis, B., 963.
- Sameshima, *J.*, true and colloidal viscosity, A., 200.
- sorption of gas by charcoal as a dissolution phenomenon, A., 304.
- surface area and sorption, A., 1135.
- Sammartino, *U.*, action of insulin on enzymes, A., 380.
- Sampey, *J. R.* See Nicolet, *B. H.*
- Samuel, action of [various salt] solutions on aluminium and its alloys and on some rust-protecting materials, B., 489.
- Samuel, *J.*, manufacturing artificial skins for sausages, (P.), B., 171.
- Samuel, *R.* See Lessheim, *H.*
- Sanborn, *N. H.* See Kohman, *E. F.*
- Sanchez, *J. A.*, pyrogenic reactions for malic, tartaric, and citric acids, A., 543.
- iodine as a reagent for differentiating between ammonium salts, amines, and amides, A., 552.
- Sand, *H. J. S.*, Heyrovský's theory of hydrogen over-potential and alternative suggestions, A., 735.
- Sand, *H. J. S.*, Grant, *J.*, and Lloyd, *W. V.*, overpotential at antimony cathodes and electrolytic stibine formation, A., 317.
- Sand, *H. J. S.*, and Lloyd, *W. V.*, arrangement for alternating-current electrolysis, A., 38.
- Sandberg, *A.*, heat-exchanging device for air or other media, (P.), B., 959.
- Sandeman, *I.* See Allen, *H. S.*
- Sander, *F.* See I. G. Farbenind. A.-G.
- Sander, *W.*, constructal, B., 168.
- Sander, *W.* See also Guertler, *W.*
- Sandera, *K.*, apparatus for the electrometric determination of ash in sugar factory products, B., 312.
- crystallisation of sugar from strongly supersaturated solutions, B., 664.
- luminescence of sugars and of sugar factory products, B., 685.
- desiccation of sugar samples in tins, B., 729.
- electrical determination of the ash content of sugar factory products, B., 920.
- Sanders, *A. G.* See Hellerman, *L.*
- Sanders, *E.* See Cooper, *E. A.*
- Sanders, *G. E.*, and Riches, Piver & Co., copper-lime dust, (P.), B., 311.
- copper-arsenic dust [fungicide], (P.), B., 919.
- Sanders, *G. R.* See Hall, *E. A.*
- Sanders, *W. H.* See Paton, *R. F.*
- Sanderson, *P.* See Wills, *L.*
- Sanderson, *R. W. W.* See De Bruyne, *N. A.*
- Sandin, *R. B.* See Nicolet, *B. H.*
- Sándor, *G.* See Gerngross, *O.*
- Sandoz Chemical Co., Ltd., and Woodhead, *A. E.*, dyeing of [immunised] cotton materials, (P.), B., 840.
- Sands, *J. W.* See Fraser, *O. B. J.*, and International Nickel Co.
- Sands, *L.* See Anderson, *E.*
- Sandstedt, *R. M.* See Blish, *M. J.*
- Sandulesco, *G.* See Fourneau, *E.*
- Sandved, *K.*, potentiometric titration of tin with potassium bromate, A., 127.

- Sandvik, O., measurement of resolving power of photographic materials, A., 402.
- Sanford, H. W., annealing metal, (P.), B., 225.
- Sanfoureh, A., and Focet, B., decomposition of monocalcium phosphate by water, A., 740.
- Sanna, A., and Baiardo, N., ewe's milk and its adulteration, B., 667.
- Sanna, A., and Chessa, G., presence of sparteine in the flowers of *Spartium junceum*, L., A., 995.
- Sano, H., the initial period in coal-dust explosions, B., 3.
- Sansaricq, M. L., centrifugal machine, (P.), B., 639.
- Santesson, C. G., additive compounds, A., 64.
- Santiago, S., and West, A. P., odoriferous oil and linoleic tetrabromides from Philippine lumbang oil, B., 304.
- Sapojnikova, I. V., kinetics of the reaction of formation of glycine from monochloroacetic acid and the influence of neutral salts, A., 755.
- Sardou, E., chemical process for the etching of rubber, (P.), B., 229.
- Sargint, A. M., and Crowe, G. W., compositions for use as paints, plasters, cements, etc., and treatment of surfaces for the protection, repair, or ornamentation thereof, (P.), B., 816.
- Sarkar, A. N., X-ray examination of the crystal structure of certain compounds, A., 98.
- Sarkar, I. See Dey, B. B.
- Sarkar, P. B., europium compounds, A., 325.
- Sarkar, P. B. See also Urbain, G.
- Sarmento, A de M. See Kopaczewski, W.
- Sartig, J., process and apparatus for denicotining tobacco, tobacco waste, and tobacco products, (P.), B., 317.
- Sarver, L. A., determination of ferrous iron in silicates, B., 557.
- Sarver, L. A., and Brinton, P. H. M.-P., solubilities of some rare-earth oxalates, A., 509.
- Sasahara, T., crystal structure of α -thallium, A., 814.
- Sasahara, T. See also Asahara, G.
- Sasaki, J., helium content of some Japanese minerals, A., 225.
- Sasaoka, Y. See Komatsu, S.
- Saslavsky, J., volume relationships in formation of solid compounds, A., 812.
- Sassaman, H. L. See Bethke, R. M.
- Sata, N., conductivity of acetic acid in acetone, A., 113.
- Sata, N., densities of nicotine-water mixtures, A., 719.
- Sato, K. See Saunders, S. W.
- Sato, M., kinetic theory of Eötvös' law, A., 418.
- Sattler, H. See Nicolet, B. H.
- Sauer, E., and Fischler, F., use of colloids for boiler-scale prevention, B., 926.
- Sauer, F., stabilisation of yeast, (P.), B., 538.
- Sauer, H., jun., production of suffocating and poisonous gases for combating vermin, (P.), B., 830.
- Sauer, J. N. A., process and apparatus for treating liquids with purifying and decolorising agents, (P.), B., 434*.
- Sauer, J. N. A., manufacture of active carbon, (P.), B., 868*.
- Sauerbier, (Miss) J. C. M., detection of coal tar and coal-tar distillates in petroleum asphalt and natural asphalt, B., 642.
- Sauerbrey Maschinenfabrik A.-G., G., field tube evaporator for alkali hydroxide solutions, (P.), B., 298.
- Sauermann, influence of the variable composition of coke-oven gas on its economical combustion, B., 97.
- Sauerwald, A. See Müller, Adolf.
- Sauerwald, F., dispersoid chemistry in metallurgy, B., 704.
- Sauerwald, F., and Elsner, G., influence of time and temperature on the mechanism of the mechanical fracture of large crystals of iron, aluminium, copper, and brass, A., 1017.
- Sauerwald, F., Neudecker, H., and Rudolph, J., ternary systems with iron and carbon. I. Phases " $\text{Fe}_3\text{C}, \text{Cr}_3\text{C}$ " and $\text{Cr}_{10}\text{C}_6\text{Fe}_3$ and "physical residual analysis," A., 517.
- Sauerwald, F., Patalong, H., and Ratke, H., influence of cold rolling on the rate of evaporation of metals, A., 302.
- Sauerwald, F., and Töpler, K., internal friction of molten metals and alloys. II. Method of measurement, and internal friction of bismuth-tin alloys and of the alloy Cu_3Sn , A., 14.
- Sauerwald, F. See also Bienias, A., and Drath, G.
- Saunders, F. A., spectrum of argon in the extreme ultra-violet, A., 910.
- Saunders, H. L. See Bone, W. A.
- Saunders, K. H. See British Dyestuffs Corporation, Ltd.
- Saunders, S. L. M. See Le Fèvre, R. J. W.
- Saunders, S. W., gaseous explosions. II. Ionisation in detonating and non-detonating mixtures of hydrogen and oxygen, A., 605.
- Saunders, S. W., gaseous explosions. IV. Ionisation in methane-oxygen and acetylene-oxygen mixtures, A., 605.
- Saunders, S. W., and Sato, K., gaseous explosions. III. Ionisation in explosions of carbon monoxide and oxygen, A., 605.
- Saurwein, K. See I. G. Farbenind. A.-G.
- Sausen, B. R., Binks, H. D., and Binks Spray Equipment Co., spray cooling, (P.), B., 575.
- Sautermeister, C., and Wilhelm, F., production of neutral bitumens by means of acid resins from the purification of mineral oil, (P.), B., 182.
- Sautot, A., process of chrome tanning, (P.), B., 758.
- Sauveur, A., durometer: an instrument for testing hardness, B., 46.
- Savage, J., method and apparatus for degreasing metal, etc., (P.), B., 913.
- Savage, J., extraction of oleaginous and other materials with volatile solvents, (P.), B., 946.
- Savage, W. G., recent advances in the bacteriological examination of food and water, B., 313.
- Savard, J. See Grignard, V.
- Savary, M. J. H., treatment of sugar juices, (P.), B., 500.
- Savinov, B. G. See Kukharensko, I. A.
- Savitsch, N. G. See Avdejeva, M. S.
- Savoire, R. See Tassilly, E.
- Savul, U., metaxite [serpentine] from Liubotina, Banat, A., 1164.
- Sawford, H. S., X-ray screens, (P.), B., 93*.
- Sawyer, R. A., deep-lying terms in two- and three-valency electron system spectra, A., 1.
- Sawyer, R. A., pp' -groups in atomic spectra, A., 1117.
- Sawyer, R. A., and Beese, N. C., new terms in the spectra of zinc and mercury, A., 82.
- Sawyer, R. A., and Paschen, F., first spark spectrum of aluminium, Al II, A., 998.
- Sawyer, R. A., and Smith, F. R., spectra of boron, A., 489.
- Saxon, R., reversal of chemical reactions by electrolysis, A., 29.
- Saxon, R., action of electrolysis, A., 322.
- Saxon, R., couple deposition of metals, A., 840.
- Saxon, R., electrolysis of copper pyrites, A., 1153.
- Sayer, H. See Twyman, F.
- Sayles Finishing Plants, Inc. See Huey, H. I.
- Sayre, R. E., and Metals Recovery Co., concentration of ores, (P.), B., 784.
- Sazanoff, P. P., printing with basic dyestuffs, (P.), B., 186.
- Sbarsky, B., and Nikolaiev, K., mechanism of immunisation. IV. Dialysis experiments, A., 593.
- Sborgi, U., anodic behaviour of metals in non-aqueous solutions, A., 630.
- Scagliarini, G., additive compounds between quadri- and bi-valent metals and organic bases; probable nature of secondary valencies, A., 352.
- Scagliarini, G., and Tartarini, G., compounds of titanium halides with oxygenated organic substances, A., 56.
- Scagliarini, G., and Tartarini, G., additive compounds of halides of bivalent metals with organic bases. III., A., 137.
- Scaife, W. B., & Sons Co. See Duden, E. G.
- Scaletti, U. See Di Capua, G.
- Sealia, L. See Beretta, A.
- Scallone, C. C. See Randall, M.
- Scanavy-Grigorieva, M., active hydrogen, A., 119.
- Scanes, A. E. L., and Metropolitan-Vickers Electrical Co., Ltd., electrical insulating compound, (P.), B., 561.
- Scanlan, J. T., French, R. W., and Holmes, W. C., acid-fuchsin as a stain: a refinement in manufacture, A., 593.
- Scanlan, J. T. See also Ambler, J. A., Holmes, W. C., and Lynch, D. F. J.
- Scarborough, H. A., and Waters, W. A., substitution products of 2-aminodiphenyl, A., 236.
- Scarborough, H. A., and Waters, W. A., higher substitution products of 4-aminodiphenyl, A., 656.
- Scarborough, H. A. See also Blakey, W., and McCombie, H.
- Scarlett, A. J., Morgan, W. L., and Hildebrand, J. H., emulsification by solid powders, A., 1139.
- Scarpa, F., and Anciens Établissements J. Juthy, manufacture of centrifugal pots for use in spinning artificial silk, (P.), B., 811.
- Scarpa, O., electric furnace for gas reactions, B., 529.
- Scarth, G. W., influence of external osmotic pressure and disturbance of the cell surface on the permeability of *Spirogyra* for acid dyes, A., 1109.

- Scatchard, *G.*, revision of some activities in water-alcohol mixtures, A., 206.
 mixed solutions of electrolytes and non-electrolytes, A., 828, 1028.
- Schaack, *R. H. van, jun.*, cellulose ester composition, (P.), B., 228.
 ester of [*n*]-butyl alcohol, (P.), B., 237.
- Schaaf, *H.* See Reissert, *A.*
- Schaarschmidt, *A.*, modern saltpetre industry and the nitrate problem, B., 42.
- Schacherl, *R.* See Feigl, *F.*
- Schacht, *W.*, production of tobacco extracts of high nicotine content, (P.), B., 199.
- Schachtschabel, *K.*, measurement of absorption over a wide spectral range, including its application to glasses, A., 81.
- Schade and Winter, tower coolers and paddle coolers for potash liquors, B., 477.
- Schade, *H.*, importance of hydrogen-ion concentration in pathology, A., 20.
- Schächterle, *P.* See Grube, *G.*
- Schaefer, *C.*, shape of the carbon dioxide molecule, A., 1122.
- Schaefer, *C.*, Bormuth, *C.*, and Matossi, *F.*, infra-red absorption spectra of carbonates, A., 5.
- Schaefer, *H.*, [mould for] the production of artificial stone blocks, (P.), B., 444.
- Schaefer, *J.*, brewing pan heated by internal steam tubes, (P.), B., 455.
 refractory brick, (P.), B., 815.
- Schäfer, *J.* See also Collin & Co.
- Schäfer, *W.* See Helferich, *B.*
- Schaeffer, *A.* See I. G. Farbenind. A.-G., and Thiess, *K.*
- Schaeffer, *G.* See Kahn, *M.*
- Schaeffer, *H. T.*, Fought test for acetone, A., 134.
- Schäffner, *A.* See Waldschmidt-Leitz, *E.*
- Schafer, *E. R.*, Bray, *M. W.*, and Peterson, *C. E.*, pulping flax straw. II. Chemical studies with chlorine as a pulping agent, B., 327.
- Schaffer, *J. M.* See Tilley, *F. W.*
- Schaffganz, *K.* See I. G. Farbenind. A.-G.
- Schafmeister, *O.* See Coehn, *A.*
- Schail, *O.*, determination of humic acid [in soils], B., 759.
- Schakov, *A. S.*, preparation of sodium phosphomolybdate, A., 532.
- Schallreuter, *W.* See Patent-Treuhand Ges. für Elektrische Glühlampen m.b.H.
- Schalnikov, *A.* See Roginski, *S.*
- Schanche, *H. G.*, and Du Pont de Nemours & Co., *E. I.*, increasing the resistance of lithopone to sunlight, (P.), B., 305.
- Schaphorst, *W. F.*, collapsing strength of thin tubes and pipes in chemical works, B., 688.
- Schapiro, *F. S.* See Isgarishev, *N. A.*
- Schapiro, *N.* See Abderhalden, *E.*
- Schapringer, *S.*, process of tanning hides, (P.), B., 854.
- Scharavski, *P.* See Nasledov, *D.*
- Scharff, *G. E.*, and Nobel's Explosives Co., Ltd., manufacture of artificial leather and the like, (P.), B., 120.
- Seharnovsky, *A. M.* See Burkser, *E. S.*
- Scharrer, *K.*, separation of chlorate from perchlorate, A., 124.
 decomposition of hydrogen peroxide by soils, B., 918.
- Scharrer, *K.* [with Strobel, *A.*, Schwaibold, *J.*, and Sehropp, *W.*], iodine and milk secretion. V., VI. Administration of small doses to goats. VII., VIII. Administration to cows, A., 372.
- Scharrer, *K.*, and Schwaibold, *J.*, iodine as a biogenic element. X. Iodine content of cultivated plants, A., 798.
- Scharrer, *K.*, and Schwartz, *W.*, iodine as a biogenic element. XI. Action of iodine on yeast, A., 903.
- Scharrer, *K.* See also Niklas, *H.*, and Strobel, *A.*
- Scharvin, *V. V.*, and Lukin, *A. M.*, quinonedithiosalicilic acid and quinonedithioxanthene, A., 884.
- Scharvin, *V. V.*, and Pakschwer, *A.*, oxidation of organic dye-stuffs and of cellulose on exposure to light, B., 837.
- Schatz, *H.* See I. G. Farbenind. A.-G.
- Schaum, *K.*, and Trautluft, *R.*, photometric and spectrophotometric studies. VI. Light-intensity measurements in the silent electric discharge, A., 1007.
- Schaun, *E.* See Breeht, *W.*
- Scheele, *E.* See Brunner, *J.*
- Scheff, *G.*, skatoxylsulphuric acid in urine, A., 375.
 spectrophotometric determination of glycuronic acid, A., 551.
- Scheffer, *F.*, titration of the ammonium phosphomolybdate precipitate (Lorenz method) with sodium hydroxide in the presence of formaldehyde, A., 953.
- Scheffer, *F.* See also Blanck, *E.*
- Scheffer, *F. E. C.*, Dokkum, *T.*, and Al, *J.*, dissociation of methane, A., 29.
- Scheffer, *F. E. C.* See also Meyer, *G.*
- Scheffer, *L.*, emulsion therapy. II. Amount and duration of fat storage in the lungs, A., 990.
- Scheffer, *L.* See also Bodó, *R. von.*
- Scheffers, *H. W.*, preparation of pure oleic acid, A., 645.
- Scheffers, *H. W.* See also Steger, *A.*
- Scheffler, *G.*, machine for preparation of artificial edible fats, (P.), B., 530.
- Seihe, *G.*, [mutability of absorption spectra in solutions in relationship to the distribution of charge of the molecules and connexion between absorption and refraction], A., 6.
- Seihe, *G.* [with Backenköhler, *F.*, and Rosenberg, *A.*], mutability of absorption spectra in solutions and the distribution of charge of the molecules. IV., A., 6.
- Seihe, *G.* [with Felger, *E.*, and Rössler, *G.*], influence of solvent on absorption spectrum, rate of reaction, and equilibrium. V., A., 711.
- Seihe, *G.*, and Pummerer, *R.*, caoutchouc. V. Absorption of caoutchouc and guttapercha in the ultra-violet region of the spectrum, A., 1193.
- Scheiber, *J.*, polymerisation during the drying and boiling of fatty oils, with reference to the work of Auer, B., 118.
 hard Manila copal, B., 496.
- Scheiber, *J.*, and Noack, *W.*, production of shellac substitutes, (P.), B., 148.
- Scheibler, *H.*, compounds of bivalent carbon. II. Sodium-oxethoxymethylene and carbon monoxide diethylacetal [dithoxymethylene], A., 338.
 carbon monoxide and bivalent carbon, A., 1051.
 isolation and identification of certain thiophen compounds occurring in shale-oil, B., 5.
- Scheibler, *H.*, and Mahboub, *A. Z.*, metallic derivatives of the enolic forms of monocarbonyl compounds. V. Interaction of phenylacetylene with ethyl potassiophenylacetates. VI. Action of alkali metals on ethyl phenylacetate, A., 357.
- Scheibler, *H.*, and Marhenkel, *E.* [with Nikolic, *R.*], metallic derivatives of the enolic forms of monocarbonyl compounds. IX. Condensations of ethyl acetate. X. Preparation and properties of ketenacetals, A., 1167.
- Scheid, *J. F.*, Toundorf, *V.*, and Zeiss, *C.*, manufacture of finely-perforated ceramic plates for use in the manufacture of artificial silk, etc., (P.), B., 905.
- Scheidemandel, *J.*, production of heat-insulating material, (P.), B., 751.
- Seheidhauer & Giessing Akt.-Ges., manufacture of refractory bricks from chamotte and casting clay slips, (P.), B., 254.
 manufacture of clay-bonded products by means of a casting clay slip, (P.), B., 443.
 refractory, acid-proof, and other ceramically bonded products, (P.), B., 702, 842.
- Scheidt, *W. H.* (Scheibler, *F.*), bag filter with outflow pipes disposed on one side for filter bags closed on all sides, (P.), B., 863.
- Scheifele, *B.*, rôle of solvents and diluents in varnishes, B., 916.
- Seheil, *E.*, stability of iron carbide at high pressures, A., 112.
- Seheil, *E.* See also Tammann, *G.*
- Schellbach, *H.*, abnormal butter, B., 614.
- Schellhaas, *G.*, manufacture of solid cork articles, etc., (P.), B., 775.
- Schenck, *A. T.*, production of a porous cementitious article, (P.), B., 367.
- Schenck, *H.* See Oberhoffer, *P.*
- Schenck, *M.*, alkaloids of the animal kingdom, A., 1098.
- Schenck, *M.*, and Kirchhof, *H.*, bile acids. XV. Electro-reduction of dehydrodeoxycholic acid to hydroxyketocholeic acid; conversion of the product into 7-ketocholeic acid, A., 562.
 bile acids. XVI. and XVII., A., 665, 1080.
- Schenck, *R.*, [phosphonitric chlorides and their transformations], A., 264.
- Schenck, *R.* [with Krägeloh, *F.*, and Eisenstecken, *F.*], equilibria in the reduction, oxidation, and carburation of iron, II., A., 939.
- Schenck, *R.* [with Krägeloh, *F.*, Eisenstecken, *F.*, and Klas, *H.*], equilibria in the reduction, oxidation, and carburation of iron. I., A., 939.

- Schenck, R., and Dingmann, T. [with Bökmann, J., Ebert, W., Kesting, W., Lepetit, G., Müller, Johannes, and Pratje, W.], equilibria in the reduction, oxidation, and carburation of iron. III., A., 1030.
- Schenck, R., and Stenkhoff, R., decomposition of iron carbide by acids, A., 532.
- Schenk, D., malt extracts; time of saccharification and diastatic power; phenomena hindering their determination, B., 921.
- Schenker, F. See Goudet, H.
- Scheponovski, A., determination of phosphoric acid in soils, B., 951.
- Schepss, W. See Rabe, P.
- Scherbaum, B., and Krause, A., centrifugal grinding mills, (P.), B., 431.
- Scherbaum, J. B. C., grinding mill, (P.), B., 432.
- Scherer, O. See Manchot, W.
- Schermerhorn, L. G. See Nightingale, G. T.
- Schertel, L., and Lütty, W., process of refining tin, (P.), B., 116*.
- Schertz, F. M., commercial applications of chlorophyll derivatives, B., 891.
- Scheuer, E., scleron and aeron, B., 168.
- Scheunert, A., vitamin-content of wheat- and rye-germ, A., 595.
- Scheunert, A., and Schieblich, M., influence of the p_{H} of the nutrient medium on the amount of vitamin-B formed by *Bacillus vulgaris*, A., 595.
- formation of vitamin-B by *B. vulgaris*, Migula, in vitamin-free media, A., 595.
- different behaviour of pigeons and hens on supplying their vitamin-B requirements by fresh green plants, A., 904.
- vitamin content of beer, B., 665.
- Scheurer, O., brightening alizarin pink shades during printing, B., 474.
- Scheyer, W. See Brigl, P.
- Schhukin, A., chemical composition of wheat, B., 568.
- Schicht A.-G., manufacture of highly viscous lubricating oils, (P.), B., 304.
- Schidlof, A., Nernst's heat theorem and the impossibility of absolute zero, A., 207.
- interpretation of the masses of the electron and proton in the five-dimensional universe, A., 1121.
- Schidlof, A. See also Berthoud, A.
- Schidrowitz, P., vulcanisation of concentrated latex, B., 610.
- comparative experiments with gas-black and lamp-black [in rubber], B., 885.
- Schidrowitz, P., and Vultex, Ltd., manufacture of rubber, (P.), B., 341.
- Schieber, W. See Gutbier, A.
- Schieblich, M. See Scheunert, A.
- Schiebold, E. See Seidl, E.
- Schiedwitz, H. See Paul, C.
- Schiemann, G., and Novak, P., oxidising action of "chloramine-T" [sodium *p*-toluenesulphonchloroamide], A., 1060.
- Schiemann, G. See also Balz, G.
- Schier, H., refrigerating machine, (P.), B., 544.
- Schierge, M., preparation of bacterial proteolytic enzymes from liquid cultures by precipitation with mastic, A., 77.
- Schiffer, E., determination of cobalt and other alloyed elements in cobalt metal, cobalt steel, and high-speed tool alloys, B., 845.
- Schiffner, H. J. See Oberhoffer, P.
- Schiller, G. See Müller, Ernst.
- Schiller, H. von. See Semmler, F. W.
- Schilling, H., smallest carriers of electricity in gases, A., 708.
- Schilov, E., rapid calibration of micro-burettes, A., 221.
- Schilov, E. [with Ossennova, Z. A.], method of micro-titration, A., 221.
- Schilov, N. A., and Nekrassov, B., adsorption and chemical nature of some organic compounds, A., 1135.
- Schilov, N. A., and Pevsner, (Mlle.) S. M., adsorption from mixed solvents, A., 721*.
- Schilov, N. A., and Tschepellevetski, M. L., solubility and adsorption of electrolytes, A., 929.
- Schilt, W. See Hirzel, H.
- Schimka, O. See Zinke, A.
- Schimbus, B., catalytic action of irradiated cod-liver oil, A., 487.
- Schimmelpfeng, P. See Pincussen, L.
- Schindler, W., stalagmometric tests on some leather oils, B., 608.
- Schinz, H. See Ruzicka, L.
- Schirlitz, K., relationship of blood-sugar concentration, specific dynamic action, and rate of oxidation of a number of carbohydrates, A., 588.
- Schirmacher, K., Zahn, K., Wilke, K., Ochwat, P., and Grasselli Dyestuff Corporation, [Bz-2¹]-hydroxybenzanthrones, (P.), B., 275.
- Schirmacher, K. See also I. G. Farbenind. A.-G.
- Schirmann, (Frl.) M. A., production of high vacua by using metals of low volatility, especially tungsten, A., 13.
- Schischkin, V., "anode effect," A., 422.
- Schittenhelm, A., and Chrometzka, F., the uricolytic enzyme. I. Liver perfusions. II. Destruction of uric acid by ammonia, A., 278.
- Schittenhelm, A., Massatsch, and Warnat, nutritive value of dried yeast preparations, A., 374.
- Schittenhelm, A. See also Rubner, M.
- Schladebach, H. See I. G. Farbenind. A.-G.
- Schläpfer, P., and Flachs, R., solubility of naphthalene in benzene, toluene, and xylene, A., 509.
- Schlaepfer, R., oxidation of transformer oils, B., 132.
- Schlager, E. See Fichter, F.
- Schlatter, H. See Waldschmidt-Leitz, E.
- Schlauer, K. See Küster, W.
- Schleede, A., and Buggisch, H., galena and iron pyrites as detectors [of wireless waves], A., 504.
- Schlegel, J. W., and Manley, J. P., sugar-house incrustations, B., 537.
- Schlegel, J. W., and Stueber, A. H., some sources of error in the colorimetric determination of p_{H} values, A., 637.
- Schlegel, W. See I. G. Farbenind. A.-G.
- Schleicher, A., change in the properties of tin bronzes caused by pressing and forging, B., 112.
- formation of ferrite and diminution of impact resistance in tempered nickel-chromium steels, B., 526.
- Schleicher, A., and Toussaint, L., electrolytic determination and separation of arsenic, antimony, and tin, A., 222.
- Schleicher, S., recovery of flue dust containing zinc and lead oxides from Siemens-Martin furnace flue gas, B., 222.
- Schleifenbaum Gebrüder & Co., G.m.b.H., and Irmer, A., grinding or pulverising mill, (P.), B., 352.
- Schlemmer, J., identification of sucrose in the presence of invert sugar and other carbohydrates, B., 664.
- Schlesinger, N. [with Malkina-Okun, R.], displacements of equilibria by substances which simultaneously act as catalytic accelerators. II., A., 837.
- Schleusener, W., absorption of plant nutrients and formation of dry matter by varieties of millet under different manurial conditions, B., 55.
- Schlichting, O. See Wieland, Heinrich.
- Schlick, R., addition of materials to paints to prevent separation and settling of pigments, (P.), B., 947.
- Schliewinsky, H. See Börnstein, E.
- Schlitt, E. See Feldberg, W.
- Schlitt, J. L., Dennis, W., and Air Reduction Co., Inc., liquefaction apparatus, (P.), B., 65.
- Schlitt, J. L. See also Van Nuy, C. C.
- Schloesing, A. T., and Ledoux, D., influence of drying and heating arable soils on their content of water-soluble phosphoric acid, B., 343.
- Schloesing, T., direct absorption of nitric oxide, (P.), B., 252.
- absorption of oxides of nitrogen, (P.), B., 813.
- Schloss, J. See Wöhlisch, E.
- Schlossmann, H., adrenaline content of blood, A., 476.
- Schlosstein, H., manufacture of a medium for treating oils, (P.), B., 836.
- Schlötterer, G. K., Youngman, R. H., and Harbison-Walker Refractories Co., unburned refractory [magnesite] brick, (P.), B., 908.
- Schlötterhose, C., production of fish meal, (P.), B., 615.
- Schlubach, H. H., and Huntenburg, W., two new pentabenzoyl-glucoses, A., 858.
- Schlubach, H. H., and Rauchenberger, W., methylation of hexosediphosphoric acid, A., 644.
- Schluchter, A. W. See Ferguson, A. L.
- Schlüter, H., methods of testing oils. I. Viscosity determinations with the Engler apparatus, B., 693.
- Schlueter, H. See Mitsch, A.
- Schlumberger, E., electrical method for the determination of moisture in sulphite cellulose, B., 184.
- determination of water in sulphite pulp, B., 213.
- thermal and material efficiency of modern calcium carbide and ferrosilicon [electric] furnaces, B., 217.
- dehydration of sulphite spirit with quicklime, B., 361.

- Schlumberger, E. See also Hilpert, S., and Königsberger Zellstoff-Fabrik & Chem.-Werke Koholyt A.-G.
- Schlumpf, J., apparatus for dyeing or washing textile goods, (P.), B., 249.
- Schlutwig, W., titration of tin with ferric chloride using indigo-carmin [as internal indicator], A., 223.
- Schmalenbach, A., separating by vacuum distillation the most volatile constituents of a mixture of liquids, (P.), B., 434.
- Schmalfuss, H., influence of monosaccharides and magnesium ions on sugar formation from formaldehyde, A., 648.
- determination of dihydroxyacetone; measurement of time of reactions, A., 687.
- Schmalfuss, H., and Barthmeyer, H., β -dihydroxy- Δ^8 -butene- α -dicarboxylic acid, the so-called "dihydroxymaleic acid," A., 42.
- formation of diacetyl from carbohydrates and related substances, A., 648.
- Schmalfuss, H., Barthmeyer, H., and Brandes, H., blackening of the pods of the broom, *Sarothamnus scoparius*, Wimm., A., 1226.
- Schmalfuss, H., and Lindemann, H., determination of minute amounts of *l*- α -amino- β -3:4-dihydroxyphenylpropionic acid and tyrosine in presence of one another, A., 688.
- Schmalfuss, H., and Müller, H. P., cutaneous framework of insects; dihydroxyphenylalanine in the wing cases of may-bugs, A., 586.
- Schmalfuss, H., Spitzer, K., and Brandes, H., colorimetric determination of *o*-dihydroxy-derivatives of benzene, A., 1213.
- Schmalfuss, H. See also Przibram, H.
- Schmalzl, G., impregnating wood with colour stains fast to light, (P.), B., 190.
- Schmeidel, G. See Hochstetter, F.
- Schmelzbasalt A.-G., and Trenzen, C., acid-resisting cement, (P.), B., 412.
- Schmid, A., [continuous] nitroglycerin manufacture, B., 798.
- glycol dinitrate as basis of gelatinous blasting explosives, B., 926.
- Schmid, E., increase of tensile strength of single crystals by plastic deformation, A., 99.
- tendency of metal crystals to flow, B., 582.
- Schmid, E., and Wassermann, C., recrystallisation of copper wire, A., 95.
- Schmid, F., production of multi-coloured bromoil transfer impression prints, (P.), B., 461.
- Schmid, F. See also Ambard, L.
- Schmid, G., and Olsen, R., law of neutral salt action in concentrated solutions. II., A., 21.
- Schmid, H. See Manchot, W.
- Schmid, L., sterol from coltsfoot (*Tussilago farfara*), A., 969.
- Schmid, L., and Bangler, B., [condensation products of 2-amino-pyridine with aliphatic-aromatic ketones], A., 158.
- Schmid, L., and Bilowitzki, G., inulin. II. and III., A., 342, 361.
- Schmid, L., and Ludwig, E., two sterol-like substances from *Asclepias syriaca*. II., A., 1194.
- Schmid, L., and Stohr, R., two sterol-like substances from *Asclepias syriaca*. I., A., 248.
- Schmid, L., and Waschkau, A., rape oil phytosterol, A., 872.
- Schmid, L., and Zentner, M., dehydrogenation of sitosterol, A., 661.
- Schmid, R. See Gröh, J.
- Schmid, W. See Thyll, R.
- Schmidegg, O. See Gabel, W.
- Schmidlin, R. See I. G. Farbenind. A.-G.
- Schmidt, A. See Fischer, W. M., and Kast, H.
- Schmidt, C. L. A. See Andrews, S., and Chapman, L. M.
- Schmidt, Edmond, testing sulphite liquor, B., 276.
- Schmidt, Edmond. See also Zellstoff-fabrik Waldhof.
- Schmidt, Erich, and Atterer, M., humus substances, A., 861.
- Schmidt, Erich, Meinel, K., and Zintl, E., cell-membrane of plants, A., 383.
- Schmidt, Erich, Treif, F., and Schnegg, H., incrustive substances of plants. VII. Determination of hexoses by fermentation, A., 80.
- Schmidt, Ernst, emulsifying and dissolving media, (P.), B., 237.
- Schmidt, Ernst, and Dyckerhoff, E., preventing the entrance of moisture into heat-insulating devices, (P.), B., 240.
- heat-insulating process, devices, and materials, (P.), B., 321.
- Schmidt, Ernst. See also Pauli, W.
- Schmidt, Erwin, synthesis of bromovinylarsines, A., 233, 548*.
- Schmidt, E. A. W., disintegration of aluminium by α -particles, A., 494.
- Schmidt, F. See Bertho, A.
- Schmidt, Ferdinand, band-types and absorption-edge series in alkaline-earth phosphors, A., 712.
- Schmidt, Ferdinand, and Zimmermann, W., validity of Stokes' law for phosphors, A., 187.
- Schmidt, Fritz, production of moulded pieces from dry mixtures of cellulose derivatives and albuminous substances, (P.), B., 328.
- Schmidt, G., metal vessels for use in the production and storage of hydrogen peroxide, (P.), B., 653.
- Schmidt, G. C., ion-rays, A., 397.
- Schmidt, H., corrosive influence of sulphur and sulphur compounds in naphtha solutions, B., 693.
- Schmidt, Hans. See Chemische Fabrik von Heyden A.-G. and Löwenbein, A.
- Schmidt, Harry. See Blumann, A., and Zeitschel, O.
- Schmidt, H. H., gelatin. X. [Sensitising action of thiosinamine], B., 157.
- Schmidt, J., manufacture of converter bottoms, (P.), B., 705.
- Schmidt, Julius, and Bürkert, J., phenanthrene series. XXXVI. 2:7-Dibromophenanthraquinone and its derivatives, A., 771.
- Schmidt, Julius. See also Battegay, M., and Troensegaard, N.
- Schmidt, J. G., Lee, H. R., and Newport Co., preventing the dissolution of iron and steel in sulphuric acid and pickling baths, (P.), B., 113.
- Schmidt, J. M., thermal analysis of binary systems of anhydrous beryllium chloride with various metallic chlorides, A., 112.
- Schmidt, K., process and apparatus for splitting up metal alloys into their various component kinds of crystals by centrifuging, (P.), B., 561.
- aluminium alloys resistant to corrosion especially by sea-water, (P.), B., 606.
- non-corrodible aluminium[-magnesium] alloy, (P.), B., 606.
- Schmidt, Karl, illuminating gas from lignite, B., 691.
- Schmidt, Karl. See also Moser, L.
- Schmidt, Kurt. See Chemische Fabrik auf Aktien (vorm. E. Schering).
- Schmidt, R. E. See I. G. Farbenind. A.-G.
- Schmidt, K. F., Zutavern, P., and Knoll & Co., production of organic [nitrogen] compounds, (P.), B., 974.
- Schmidt, K. F. See also Knoll & Co.
- Schmidt, M. P., and Grasselli Dyestuff Corporation, manufacture of vat dyestuffs, (P.), B., 405*.
- Schmidt, M. P., Krieger, W., and Kalle & Co., A.-G., process of preparing sensitive layer on a suitable base, (P.), B., 462*.
- Schmidt, M. P., Neugebauer, W., and Grasselli Dyestuff Corporation, preparation of nitriles of the benzanthrone series, (P.), B., 438*.
- Schmidt, M. P. See also Kalle & Co., A.-G.
- Schmidt, O. See Philippi, E., and Seka, R.
- Schmidt, Otto. See I. G. Farbenind. A.-G.
- Schmidt, R., chemical tests for fecal impurities in drinking water, B., 205.
- Schmidt, R. See also Eggert, J.
- Schmidt, Rudolf, determination of boric acid in silicates, B., 189.
- Schmidt, Rudolf. See also Evers, F.
- Schmidt, T., coking process and path of travel of gases in the coke oven, B., 96.
- Schmidt, W. See I. G. Farbenind. A.-G.
- Schmidt, Walter. See Terres, E.
- Schmidt, Willy, treatment of leather goods, (P.), B., 421.
- Schmidt, W. A., and International Precipitation Co., refining petroleum, (P.), B., 35.
- Schmiedel, T. See Metallbank & Metallurgische Ges. A.-G.
- Schmilauer, E., determination of the effect of explosives, (P.), B., 381.
- Schmitt, C., preparation of bakery produce, (P.), B., 732.
- Schmitt, H. See Agde, G.
- Schmitt, K. O., precise volumetric analysis, A., 329.
- reagents for standardisation of acids, A., 433.
- precise volumetric analysis. III. Standards for alkaline solutions, A., 845.
- Schmitt, N., production of material resembling leather, (P.), B., 611.
- Schmitt, O. See Pfyl, B.
- Schmitt, R. See I. G. Farbenind. A.-G.
- Schmitt, W., theory of the colloid reactions of the cerebrospinal fluid in reference to clinical practice, A., 411.
- colloidal reactions of the cerebrospinal fluid, A., 586.

- Schmitt-Krahmer, O., lactic acid formation in red and white muscle of birds, A., 374.
- Schmitz, H. L., and Glover, E. C., glycolysis in leucæmic blood, A., 1105.
- Schmitz, M. E., utilisation of acid tar from the purification of illuminating oil and other oils, B., 384.
- utilisation of acid tars, B., 384.
- production of asphalt from acid sludge from the purification of mineral oils, B., 385.
- Schmitz, W., and Tinolac Co. of America, preparation of an insecticide, (P.), B., 121.
- Schmitz-Dumont, O. See Rheinboldt, H.
- Schmolke, A., small chamber coke oven, B., 33.
- Schmutz, F. C. See Nelson, H. A.
- Schneck, A., addition of bromine to butter and margarine fat, B., 850.
- Schneevoigt, A. See I. G. Farbenind. A.-G.
- Schnegg, H. See Schmidt, Erich.
- Schneider, A., production of sulphite liquor, (P.), B., 814.
- Schneider, B. B., and Standard Oil Co., method and apparatus for the cracking of hydrocarbon oils, (P.), B., 162.
- Schneider, C., preparation of compositions for use as positive catalytic agents for hydraulic binding materials, (P.), B., 110.
- Schneider, G. See Gluud, W.
- Schneider, H. See Straub, F.
- Schneider, J., and Ulček, A. K., volumetric evaluation of enzymic bates used in tanning, B., 662.
- Schneider, J., jun., and Ulček, A. K., titration method for evaluating enzyme bates, B., 758.
- Schneider, K. See Jirsa, F.
- Schneidmüller, A. See Helferich, B.
- Schnell, A., surface tension of aqueous solutions of mono-, di-, and tri-ethylamine, A., 723.
- Schnider, O. See Brauchli, E.
- Schnitzler, E. See Abderhalden, E.
- Schnitzspahn, K. See I. G. Farbenind. A.-G., and Keller, F.
- Schoch, E. P., direct titrimetric methods for magnesium, calcium, and sulphate ions, and their application in water analyses, B., 158.
- Schöebel, W. See Keller, O.
- Schoeller, W., preparation of $\beta\beta'$ -dihalogeno-ethers, (P.), B., 459.
- Schoeller, W. See also Chemische Fabrik auf Aktien (vorm. E. Schering).
- Schoeller, W. R., and Deering, E. C., analytical chemistry of tantalum, niobium, and their mineral associates. IX. Separation of titanium from tantalum and niobium, B., 940.
- Schoeller, W. R., and Jahn, C., analytical chemistry of tantalum, niobium, and their mineral associates. VI. Precipitation of the earth acids by sodium compounds, A., 32.
- analytical chemistry of tantalum, niobium, and their mineral associates. VII. Precipitation of tungstic acid by tannin. VIII. Separation of tungsten from tantalum and niobium, A., 1047.
- Schöllkopf, K., and Rheinische Kampfer-Fabr. G.m.b.H., manufacture of menthol, (P.), B., 380*.
- [production of aromatic sulphonic acids by] substituting halogen, (P.), B., 870*.
- Schöllkopf, K. See also Rheinische Kampfer-Fabr. G.m.b.H.
- Schoen, A. L., photographic method of spectrophotometry in the red and infra-red, A., 394, 916*.
- Schoen, M. See Fernbach, A.
- Schön, V., and Vykypil, F., modification of Brunck's method of determining sulphur in solid fuels, B., 3.
- Schön, W. See Goldschmidt, S.
- Schönberg, A., organic sulphur compounds. V. Action of Grignard's solutions on aromatic thioketones, A., 667.
- Schönberg, A., and Schütz, O., organic sulphur compounds. VI. Relation between constitution and stability to heat of organic compounds; thermal decomposition of mercaptols, A., 667.
- Schönberg, E., danger of explosion in the manufacture of bleaching liquor from liquid chlorine, B., 875.
- Schönbrunn, nitrogen manuring necessary for sugar-beet grown after lucerne, red clover, or after green-manuring and farmyard manure, B., 972.
- Schoener, J. G. See International Nickel Co.
- Schönfeld, J. F. P. See Bataafsche Petroleum Maatschappij.
- Schoenfeld, R. See Fodor, A.
- Schönfelder, R. See Gluud, W.
- Schönfeldt, N., Herrmann, K., and Hassel, O., space-lattice of α -erythritol, A., 401.
- Schoenhoefer, R., material for the manufacture of artificial stone and similar products, (P.), B., 781*, 816.
- manufacture of artificial stone from blast-furnace slag, B., 938.
- Schöninger, W. See Moser, L.
- Schoep, A., isomorphism of sklodowskite with uranophane, A., 611.
- crystals of kasolite, soddyite, and brochantite, A., 611.
- Schöpf, C. See Boehringer Sohn, C. H.
- Schöpf, C. [with Borkowsky, F., and Winterhalder, L.], morphine alkaloids. I. Constitution of morphine and codeine. II. Constitution of thebaine. III. Constitution and configuration of hydroxycodine, A., 472.
- Schöpf, C., and Borkowsky, F., acid transformations of morphine alkaloids; constitution of thebaine, A., 1209.
- Schoeppe, F. O., production of essences, B., 732.
- Schoetzov, R. E., and Needham, G. H., ephedrine content of *Ephedra vulgaris*, var. *helvetica*, B., 267.
- Schoffstall, C. W. See Goldman, M. H.
- Schofield, R. K., electrification at interfaces, A., 108*.
- Scholder, R., auto-complex formation with oxalates of bivalent metals. II. Dilution curves, A., 855.
- Scholder, R. [with Gadenne, E., and Niemann, H.], partial replacement of the oxalate residue in oxalato-anions of bivalent metals, A., 854.
- oxalato-derivatives of the alkaline-earth metals and lead, A., 854.
- auto-complex formation with oxalates of bivalent metals. II. Determinations of conductivity and solubility, A., 855.
- Scholefield, F. See Burgess, Ledward & Co., Ltd.
- Scholl, R. [with Semp, H., and Stix, E.], free organic radicals. V. *peri*-Pyrrolinoanthranolazyls, a new type of nitrogenous, free organic radicals, A., 675.
- free organic radicals. VI. Azylium salts, metallic salts, and the benzylation of *m*-xylyl*peri*pyrrolinoanthranolazyl, A., 885.
- Schollenberger, C. J., rapid approximate method for determining soil organic matter, B., 662.
- exchangeable hydrogen and soil reaction, B., 886.
- Schollenberger, J. H. See Davidson, J.
- Scholler, H. See Meiler, L.
- Scholvin, W. See Gröppel, K.
- Scholz, K. See Ehrental, B. P. von.
- Scholz, P., production of coloured sulphur castings, (P.), B., 482.
- sulphur and theory of accelerators of vulcanisation [of rubber], B., 564.
- Scholz, P. See also Hauser, E. A., and Hauser, K. W.
- Schomer, A., yohimbine, A., 1097.
- Schoning, I. See Traube, J.
- Schonland, B. F. J., scattering of cathode rays, A., 3.
- Schoots, E., composition of honey-dew, A., 596.
- Schoop, M. U., device for coating articles with glass, enamel, quartz, and metals, (P.), B., 221.
- Schoor, A. van. See Windaus, A.
- Schoorl, N., dehydration of salt hydrates by means of acetic anhydride, A., 124.
- temperature corrections in volumetric analysis, A., 124.
- Stahre's reaction for citric acid, A., 166.
- rotation of camphor in alcoholic solutions, A., 500.
- temperature coefficients for specific gravities and rotations of essential oils, B., 733.
- Schoorl, N., and Kuijlman, J., acid number of Peru balsam, B., 119.
- Schopper, L., apparatus for determining hardness [of metals] by means of a spherical impression, (P.), B., 848.
- Schorger, A. W., gelatinisation of lignocellulose. III. Viscose reaction, B., 213.
- some constituents of Spanish moss, B., 346.
- Schorigin, P., aryl ethers of triphenyl-, diphenyl-, and naphthyl-carbinols and the corresponding cryptophenols; tautomerism of toluene, A., 54.
- decomposition of ethers by metallic sodium, A., 54.
- tautomeric forms of toluene, A., 757.
- Schorsch, G., percentage formula of pentosans, A., 1056.
- Schott, W. See Finger, H.
- Schott & Gen, Herschkowitsch, M., and Prausnitz, P., [fritted glass] filter, (P.), B., 352.
- Schou, H. W. D., manufacture of soap, (P.), B., 495.
- Schoß, S. A., transformation of acetaldehyde into its enolic form, A., 751.

- Schousen, C., error due to hydrolysis in the determination of atropine by the ether extraction method, A., 982.
- Schrader, G. See Krauss, F.
- Schrader, H. See Fruijs, W.
- Schramm, E., and Scripture, E. W., *jun.*, particle size distribution of typical feldspars and flints, B., 678.
- Schramm, H. See Mattenklodt, K.
- Schramm, W., vanadylmalonic acid and its salts, A., 542.
- Schramm, W. See also Meyer, J.
- Schrammen, A., hyperfine structure of the terms of the cadmium spectrum, A., 998.
- Schranz, K., Lutter, C., and Winthrop Chemical Co., Inc., 1-methoxymethyl-3:7-dimethylxanthine, (P.), B., 203*.
- Schranz, K. See also I. G. Farbenind. A.-G.
- Schrauth, W., and Hausmann, H., fat-splitting agent, (P.), B., 146*.
- Schreiber, A. See Fringsheim, H.
- Schreiber, G., influence of the casting conditions on the tensile properties of aluminium and magnesium alloys, B., 940.
- Schreiber, W. See König, Joseph.
- Schreier, A., and General Zeolite Co., sterilisation of liquids, (P.), B., 830*.
- Schreinemakers, F. A. H., equilibria in systems in which phases are separated by a semi-permeable membrane. XVII., XVIII., XIX., XX., and XXII., A., 22, 418, 731, 1031, 1142.
- influence of a foreign substance on the osmotic pressure, A., 1140.
- equilibria in systems in which phases are separated by a semi-permeable membrane. XXI. Influence of pressure on osmotic systems and on the osmotic pressure, A., 1142.
- Schreiner, E., and Schreiner, E. B., hydration of univalent ions, A., 1025.
- Schreiner, E. See also Skancke, R.
- Schreiner, E. B. See Schreiner, E.
- Schreiner, O., and Dawson, P. R., manganese deficiency in soils and fertilisers, B., 343.
- Schreiner, O. M. See Sharp, P. F.
- Schroder, H. H., manufacture of material similar to compressed asphalt, (P.), B., 412.
- Schroeder, C. R., and Metal and Thermit Corporation, manufacture of ferrotungsten, (P.), B., 114.
- effecting exothermic reactions, (P.), B., 169.
- Schröder, G., manufacture of protective and curative agents from glandular organs, (P.), B., 925.
- Schröder, H., coke ovens, (P.), B., 694.
- Schroeder, M., recovery of constituents, other than sulphur dioxide, from gas mixtures, (P.), B., 323.
- Schröder, R. See Bohle, F.
- Schröder, W. See Benrath, A., and Glockenstahlwerke A.-G. vorm. R. Lindenberg.
- Schroeder, W. F. See Kerr, R. H.
- Schröder, W. G., cooling apparatus for fatty emulsions and the like, (P.), B., 531.
- Schrödinger, E., undulatory theory of the mechanics of atoms and molecules, A., 88.
- energy exchange according to the wave mechanics, A., 916.
- Schrödter, (Frl.) K. See Brüche, E.
- Schröer, E., critical state. I. Critical state of water and of aqueous solutions, A., 1029.
- Schroeter, G., simple synthesis of α -amino-acids, A., 45.
- production of 2:5-diaminobenzene-1:4-dicarboxylic acid (*p*-diaminoterephthalic acid), (P.), B., 212.
- Schroeter, G. [with Götzky, S.], hydrogenation of anthracene. II. Transformations of octracenesulphonic acid [*s*-octahydro-anthracene-9-sulphonic acid], A., 1178.
- Schröter, R. See Ott, E.
- Schropp, W. See Scharrer, K.
- Schroter, G. A., dewatering peat, (P.), B., 577.
- Schroth, J. See Kailan, A.
- Schryver, S. B., and Buston, H. W., isolation of some hitherto undescribed products of hydrolysis of proteins. IV., A., 785.
- Schryver, S. B., Thomas, E. T., and Paine, S. G., strength of yeast cells, B., 313.
- Schryver, S. B. See also Mastin, H.
- Schtschukina, (Mlle.) M. See Stepanov, A. V.
- Schubardt, W. See I. G. Farbenind. A.-G.
- Schubert, E. See Grüner, R.
- Schubert, F. W., and Brysilka, Ltd., method and apparatus for the manufacture of artificial silk, (P.), B., 248*.
- Schubert, F. W. See also Brysilka, Ltd.
- Schubert, P. See Karrer, P.
- Schubert, R., and Pletsch, C., tunnel annealing furnace, (P.), B., 912.
- Schuchardt, G., valuation of pitch as a binding material for carbon electrodes, B., 135.
- rapid coking of carbon electrodes, B., 257.
- Schueler, G. R., apparatus for hydrogenation of liquids, (P.), B., 690.
- apparatus for the [catalytic] hydrogenation of liquids and semi-liquids, (P.), B., 767.
- Schüler, H., first spark spectrum of lithium, A., 489.
- molecular spectrum of sodium, A., 711.
- Schueler, J. L., manufacture of basic open-hearth steel, (P.), B., 490.
- Schueler, J. L. See also Wynd, L. A.
- Schüren, W. See Windisch, W.
- Schürer, E., and Felten & Guillaume Carlswerk Akt.-Ges., magnetisable material [alloys], (P.), B., 81*.
- Schürmann, E., and Böhm, W., determination of lithium in scleron and similar aluminium alloys, B., 818.
- Schuette, H. A., and Domogalla, B. P., fatty oils as substitutes for ethyl alcohol in citrus flavours, B., 83.
- Schuette, H. A., and Harris, L. E., isopropyl alcohol as a substitute for ethyl alcohol. I. Determination of saponification values, B., 118.
- Schuette, H. A., and Sah, P. P. T., monoacetin, A., 132.
- n*-valerolactone, A., 133.
- Schuette, H. A., and Smith, M. P., isopropyl alcohol as a substitute for ethyl alcohol. III. Determination of acid numbers, B., 117.
- Schütz, F. See Rupe, H.
- Schütz, O. See Schönberg, A.
- Schütz, P. See Matthes, H.
- Schütz, W., natural width and broadening of the absorbed *D*-line in sodium vapour as a function of the partial pressure of the vapour and of other gases, A., 1117.
- Schütze, E. See Heller, G.
- Schukarev, A. N., magnetic chemical effect, A., 211.
- Schulemann, W. See Lieske, R.
- Schulte, E. See I. G. Farbenind. A.-G.
- Schulte, F. See Herz, R.
- Schulte, M. J., determination of small quantities of dextrose [in blood], A., 690.
- Schulte, W. B. See Burgess Battery Co.
- Schultheis, W. See Lindemann, H.
- Schultheiss, G. A., antifreezing mixture, (P.), B., 65.
- Schultz, E., preparation and recovery of light oil or motor fuel from crude mineral or shale oil, tar oils, or carbonaceous materials, (P.), B., 868.
- Schultz, F. W., Ziegler, M. R., and Morse, M., influence of irradiation on oxidation products of cholesterol, A., 703.
- Schultz, M. N., and Lucas, H. J., sulphonation of *o*-toluidine and preparation of sodium 6-chloro-5-nitro-*m*-toluenesulphonate, A., 235.
- Schultze, G., and Hess, K., [constitution of cellulose], A., 44.
- Schultze, G. See also Hess, K.
- Schultze, K., capillarity and displacement, A., 197.
- capillarity. VIII., A., 625.
- Schultze, W. See Kubierschky, K.
- Schultzer, P., phosphorus and calcium metabolism on deficient diets. I. Action of ultra-violet light. II. Action of cod-liver oil. III. Changes of phosphorus or calcium content of the diet, A., 1115.
- Schulz, E. H., refractory materials, their testing and behaviour in foundry work, B., 44.
- Schulz, E. H., and Buchholtz, H., properties of high-silicon constructional steel, B., 679.
- Schulz, E. H., and Hülshbruch, W., surface decarburisation of carbon steels, B., 879.
- Schulz, E. H., and Jenge, W., alloys resistant to corrosion and their properties, B., 111.
- Schulz, F., welding rods for arc or gas welding [of steel], (P.), B., 846.
- Schulz, F., and Kohout, M., Conradson coke-test for motor oils, B., 547.
- Schulz, H. See Mühlendahl, E. von.
- Schulz, Hans. See Wolff & Co.

- Schulz, *Hermann*, and Lander, *G.*, amphoteric hydroxides, their aqueous solutions, and crystalline salts. V. Variation of diffusion coefficient and optical absorption of tungstate solutions with hydrogen-ion concentration, A., 619.
- Schulz, *Hermann*. See also Rosenmund, *K. W.*
- Schulz, *Hubert*, process and apparatus for preparation of carbon disulphide, (P.), B., 440.
- Schulz, *H. E.* See Traube, *W.*
- Schulz, *H. I.* See Wolf & Co.
- Schulz, *J. G.*, and Lorient, *H. J. M.*, apparatus for removing dust from gases, (P.), B., 959.
- Schulz, *K. G.*, respiration processes in different varieties of potatoes, A., 385.
- Schulz, *M.*, accelerated paint testing, B., 563.
- Schulz, *M.*, and Krämer, *F.*, Storck-Morawski [Liebermann] reaction for abietic acid, B., 19.
- Schulz, *M.* See also Gerngross, *O.*
- Schulz, (*Miss*) *W.*, winding or reeling artificial silk threads, (P.), B., 474.
- manufacture of cuprammonium silk threads, (P.), B., 599.
- Schulze, *A.*, thermal conductivity and conductivity-relation of alloys in relation to constitution, A., 196.
- Schulze, *E.*, decomposition of cobalt ores, (P.), B., 224.
- Schulze, *F.* See Gilman, *H.*
- Schulze, *G.*, examination of sterilised milk 27 years old, B., 153.
- simplified chlorine determination in milk, B., 794.
- testing the refractive index and lactose content of milk from individual herds, B., 794.
- Schulze, *H.*, production of crude alkaline-earth sulphides, (P.), B., 965.
- Schulze, *Heinrich*, and Berger, *G.*, alkaloids of *Aconitum Stoerckianum*, Reichenbach, A., 1097.
- Schulze, *J. E.* See Red River Refining Co., Inc.
- Schulze, *R.* See Hahn, *F. L.*
- Schulze, *W. A.* See Giauque, *W. F.*
- Schulze, *W. H.*, assay of solution of arsenious and mercuric iodide, A., 126.
- Schumacher, *E.* See Frankfurter Gas-Ges.
- Schumacher, *E. E.*, and Bouton, *G. M.*, solid solubility of antimony in lead as determined by conductivity measurements on cold-worked alloys, A., 820.
- Schumacher, *E. E.*, and Ferguson, *L.*, apparatus for measuring the diffusion of gases and vapours through membranes, A., 335.
- Schumacher, *E. E.*, and Harris, *J. E.*, thermionic properties of the rare-earth elements, A., 84.
- Schumacher, *H.*, separation of zinciferous pyrites into its constituents, (P.), B., 632.
- Schumacher, *H. J.*, behaviour of oxygen in the reaction between carbon monoxide and chlorine, A., 1147.
- Schumacher'sche Fabr. G.m.b.H., manufacture of porous artificial [filter] stones, (P.), B., 544.
- Schumm, *O.*, spectrochemical detection and identification of the natural porphyrins, A., 371.
- grating-spectrometer (wave-length spectrometer) of Loewe and Schumm for the spectro-chemical investigation of natural pigments, A., 437.
- α -haematin, the iron-containing porphyratin of plants, and the corresponding porphyrins, A., 798.
- α -haematin, Küster's tetramethylhaematoporphyrin, and Neneke's haematoporphyrin, A., 886.
- saproporphyrins; [a] coproporphyrin as product of the putrefaction of flesh and blood-rich organs; [b] a new saproporphyrin, A., 986.
- Schumm, *O.* [with Mertens, *E.*], α -haematin, the iron-porphyratin of plants, and the corresponding porphyrins, A., 685.
- Schupp, *O. E., jun.*, effect of sodium hydrogen carbonate on the titration of iodine with thiosulphate, A., 1045.
- Schupp, *O. E., jun.* See also Buehrer, *T. F.*
- Schur, *M. O.* See Richter, *G. A.*
- Schurmeyer, *A.* See Dyke, *H. B. van.*
- Schuster, *C.* See I. G. Farbenind. A.-G.
- Schuster, *F.*, electric melting pot, (P.), B., 370.
- Schuster, *Fritz*, vapour-pressure curves, A., 103.
- theory of the state of matter. VII. Molecular volume at the b. p., A., 103.
- theory and properties of binary mixtures, A., 196.
- theory of the state of matter. VIII. Internal pressure and the theorem of corresponding states, A., 818.
- Schuster, *M. B.* See Darlington, *H. T.*
- Schutt, *K.*, occurrence of α -propylene glycol, B., 891.
- Schwab, *E.* See Abderhalden, *E.*
- Schwab, *J. W.*, and Texas Gulf Sulphur Co., treatment of sulphur, (P.), B., 907.
- Schwab, *G. M.*, catalytic decomposition of ammonia, A., 946.
- Schwab, *G. M.*, and Pietsch, *E.*, contact catalysis and the activation of gases by adsorption, A., 632.
- Schwaibold, *J.* See Scharrer, *K.*
- Schwalbe, *C. G.*, method of utilising waste sulphite cellulose lye, (P.), B., 185*.
- studies in wood preservation, B., 189.
- wood and cellulose mucilage, B., 648.
- chemical methods of treating wood: use of waste material and wood preservation, B., 898.
- Schwalbe, *C. G.*, and Berndt, *K.*, pulping of pine wood by the sulphite process, B., 519.
- Schwalbe, *C. G.*, and Ekenstam, *A.*, lignin from pine wood by the action of dry-rot, B., 183.
- Schwalbe, *H.*, degree of sizing and finish [of paper], B., 328.
- Schwalbe, *H.* See also Dresdener Chromo- & Kunstdruck-Papierfabrik Krause & Baumann A.-G.
- Schwareman, *A.*, and Spencer Kellogg & Sons, Inc., making ["non-breaking"] varnish oil, (P.), B., 51.
- Schwartz, *C.*, coke-cooling plant, (P.), B., 549.
- Schwartz, *E.* See Lange, *E.*
- Schwartz, *F.*, and Gil-Camporro, *E.*, manufacture of varnish, (P.), B., 340*.
- Schwartz, *G. L.*, and Du Pont de Nemours & Co., *E. I.*, cellulose ester composition, (P.), B., 774.
- Schwartz, *H. A.*, the A3 stable transformation, B., 630.
- location of the carbon atom in boydenite, B., 680.
- Schwartz, *H. A.*, and National Malleable & Steel Castings Co., manufacture of malleable iron castings, (P.), B., 753, 783.
- Schwartz, *W.* See Scharrer, *K.*
- Schwartz, *W. M.*, and Proctor & Schwartz, Inc., dryer, (P.), B., 64.
- Schwartz, *E. W.* See Wales, *H.*
- Schwarz, *A.* See Borsche, *W.*
- Schwarz, *H.*, self-sealing door for coke ovens, (P.), B., 771.
- Schwarz, *H.* (Freiburg). See Groag, *B.*
- Schwarz, *M. von*, aluminium in the brewery, B., 424.
- aluminium alloy, alneon, for castings, B., 880.
- rapid determination of the silicon content of ferrosilicon by means of the density, B., 910.
- Schwarz, *R.*, and Merck, *H.*, constitution of porcelain, B., 43.
- Schwarz, *R.*, and Meyer, *Georg*, chloro-acids, A., 1044.
- Schwarz, *R.*, and Richter, *H.*, silicic acids. III., A., 634.
- Schwarz, *R.*, and Romero, *A.*, tula alloy; (ternary system: cuprous sulphide-silver sulphide-lead sulphide), A., 628.
- Schwarz, *R.*, and Sexauer, *W.*, constitution of titanium peroxide, A., 325.
- Schwarz, *R.*, and Tede, *K.*, photochemistry of complex compounds. II., A., 217.
- photochemistry of complex compounds. III. The hexacyano-complexes of trivalent iron, cobalt, chromium, and manganese, A., 217.
- Schwarz-Bergkampff, *E.*, Kuhlmann micro-balance, and use of porcelain, quartz, and glass filters in quantitative micro-chemical analysis, A., 34.
- Schwarzkopf, *P.*, production of molybdenum and tungsten trioxides, (P.), B., 528.
- Schwarzlose Söhne, G.m.b.H., *J. F.*, and Seydel, stable mixtures for generating carbon dioxide, (P.), B., 440.
- Schwechten, *H. W.* See Weitz, *E.*
- Schweckendiek, *C.*, light sensitivity of guaiacum resin and its possible application in photography, A., 1041.
- Schweder, improvement of coke by grinding the coal, B., 691.
- Schweitzer, *E.*, an absolute method of quantitative analysis by emission spectra. II., A., 845.
- determination of lead in bismuth by spectrum analysis. III., A., 1046.
- Schweitzer, *G. P. J.*, photographic prints in colours, (P.), B., 350.
- Schwentker, *F. F.*, preservation of blood for chemical analysis, A., 1214.
- Schwinning, *W.*, and Flössner, *H.*, growth of cast iron, B., 725.
- Schwirblanski, *J.* See Spengler, *O.*
- Scientific and Industrial Research, Department of, Freeman multiple retort of the British Oil and Fuel Conservation, Ltd., B., 208.
- report of the Stone Preservation Committee, B., 411.

- Scientific and Industrial Research, Department of, Fuel Research, methods of analysis of coal, B., 321.
Lancashire coalfield; ravine seam. II. Carbonisation in continuous vertical retorts, B., 691.
- Scotfield, T. E. See Oberle, A.
- Sconzo, A. See Oddo, G.
- Scorah, L. V. D. See Bennett, G. M.
- Scott, A. C., explosive, (P.), B., 126.
- Scott, A. C., and Mexco, Ltd., explosive, (P.), B., 862.
- Scott, A. F., and Frazier, W. R., solubilities and densities of saturated solutions of sodium and potassium halides at 25°, A., 405.
- Scott, A. H. See Curtis, H. L.
- Scott, A. W., sodium hyponitrite, A., 429.
- Scott, A. W., and Mote, J. H., Beckmann rearrangement of salicylhydroxamic acid derivatives, A., 1186.
- Scott, G. N. See Randall, M.
- Scott, H. See Hart, E. B.
- Scott, I. T., protein analogies of the mycelium of *Fusarium lycopersici*, A., 703.
- Scott, J. P., electrolytic apparatus and electrodes therefor, (P.), B., 561.
- Scott, J. W. See Gross, J.
- Scott, R. D., and Will, E. G., modified Calvert test for ethyl phthalate, B., 570.
- Scott, W., and Du Pont de Nemours & Co., E. I., manufacture of disubstituted guanidines, (P.), B., 619.
[accelerators for the] vulcanisation of rubber, (P.), B., 853.
di-*p*-xylylguanidine, (P.), B., 924.
- Scott, W., and Rubber Service Laboratories Co., rubber-vulcanisation accelerator, (P.), B., 52.
process for accelerating the vulcanisation of rubber, (P.), B., 885.
- Scott, W. W., and Leech, W. D., catalytic oxidation of ammonia, B., 186.
- Scott & Son (London), Ltd., G., and Riley, G. W., drying chambers for vegetables and like products, (P.), B., 732.
- Scottish Dyes, Ltd. See Drescher, H. A. E., Harris, J. E. G., Hooley, L. J., Smith, W., Thomas, J., Thomson, R. F., Wilson, J. S., Woodcock, W. G., and Wylam, B.
- Scripture, E. W., jun., behaviour of felspar and flint with acids and bases, B., 441.
- Scripture, E. W., jun. See also Schramm, E.
- Scrivenor, J. B., and Shenton, J. C., thorotungstite; a mineral containing tungsten and thorium from the Federated Malay States, A., 748.
- Štūkarev, K. A., electrometric titration of gastric juice as a method for the determination of its degree of buffering, A., 272.
electrometric determination of small amounts of hydrochloric acid in gastric juice, A., 272.
- Scurti, F., and Cortese, D., manifestations of life in fruit and foliage and their detection by means of the potentiometer, A., 1224.
- Sears, E. M., removal of residual poisons [lead arsenate] from fruit, (P.), B., 732.
- Seaward, R. P. See Kraus, C. A.
- Sebor, G., asphalt-like substances in coal tar, B., 645.
- Sebor, J., radioactivity of certain Czechoslovakian rocks, A., 87.
quantitative spectral analysis, A., 1158.
- Sebrell, L. B., and Goodyear Tire & Rubber Co., accelerator for the vulcanisation of rubber and method of making same, (P.), B., 52.
method of vulcanising rubber, (P.), B., 306.
accelerating the vulcanisation of rubber, (P.), B., 789.
- Sebrell, L. B. See also Bruson, H. A., and Teppema, J.
- Secareano, S., preparation of carbonyl chloride from chloropierin; colour reaction for chloropierin, A., 645.
- Sédallian, P., and Velluz, L., mechanism of the action of fatty acids and particularly of the unsaturated acids and of their soaps on bacteria and toxins, A., 903.
- Sédallian, P. See also Mouriquand, G.
- Sedlatschek, H. See Philippi, E., and Seka, R.
- Sedlmayr, R. See I. G. Farbenind. A.-G.
- Seebach, F. See Bakelite Ges.m.b.H.
- Seebe, H. See Thoms, H.
- Seede, J. A., and General Electric Co., electric furnace, (P.), B., 881, 914.
- Seede, J. A. See also British Thomson-Houston Co., Ltd.
- Seekles, L., action of methylglyoxal on carbamide, A., 365.
- Seekles, L. See also Sjollema, B.
- Seel, H., pharmacology of the cholesterol and sitosterol series, A., 73.
- Seel, P. C., and Eastman Kodak Co., process for reducing the viscosity characteristics of cellulose ethers, (P.), B., 774.
drying alkali-cellulose, (P.), B., 774.
- Seeley, E. A. See Ingold, C. K.
- Seelig, S., process and apparatus for the cracking of oils, (P.), B., 805, 836.
- Seeliger, R., and Reger, M., current density in the normal cathode-fall, A., 811.
- Segall, B. See Pfeiffer, P.
- Segay, A., explosive, (P.), B., 350*.
- Segitz, F. A. See Hein, F.
- Séguin, L. See Francois, M.
- Seguy, J. D., and Universal Oil Products Co., method of dephlegmation, (P.), B., 386.
- Seib, J., carbonisation of wood. I. Acids of crude pyroigneous acid, B., 593.
- Seibert, F. B. See Long, E. R.
- Seiberth, M. See Hartmann, M.
- Seide, O., syntheses of derivatives of 1:8-naphthyridine, A., 62.
- Seidel. See Günther.
- Seidel, C. F. See Ruzicka, L.
- Seidel, F., and Dick, W., anhydro-compounds of *o*-aminobenzaldehyde, A., 1073.
- Seidel, W., action of ergotamine ("gynergen") on the blood-sugar level in rabbit and man, A., 1220.
- Seidenschaur, F., illuminating gas from lignite by processes employing internal heating by inert gases, B., 737.
preparing a material for use as pulverised fuel, (P.), B., 835.
- Seidl, E., influence of chemical and crystallographic properties of cast metal on its behaviour during rolling, B., 940.
- Seidl, E., and Schiebold, E., behaviour of industrial copper during cold working, B., 77.
- Seidler, C. See Weissgerber, R.
- Seifert, W. See Kloss, J.
- Seifriz, W., elasticity and some structural features of soap solutions, A., 413.
- Seigel, W., [manufacture of] sodium fluoride, (P.), B., 140.
- Seigle, A. A. F. M., apparatus for cooling hydrocarbon vapours or gases at a high temperature, (P.), B., 163*.
- Seigle, J., technical and economical conditions of the heavy metallurgical industry of the east of France, with particular reference to the utilisation of gases and motive power, B., 484.
- Seigle, P. G., and Dean, G. E., method of breaking coal, (P.), B., 385.
- Seitz, A. See Gail, G. E.
- Seitz-Werke G.m.b.H., sulphuring of wine or other liquids in bottles, (P.), B., 857.
- Seka, R., and Schmidt, O., nitro-derivatives of dinaphthanthraquinone and their reactions, A., 363.
amino-derivatives of dinaphthanthraquinone, A., 363.
- Seka, R., Schmidt, O., and Sekora, K., condensation products of pyromellitic anhydride, A., 360.
- Seka, R., and Sedlatschek, H., complex compounds from pyromellitic anhydride, A., 360.
- Seka, R., and Sekora, K., reduction products of dinaphthanthraquinone, A., 363.
- Seka, R. See also Philippi, E.
- Sekine, M., formation of hippuric acid in the animal organism, A., 695.
- Sekito, S., X-ray investigation of the internal stress in metals [copper], B., 725.
lattice constant of metallic cobalt, A., 1013.
- Sekora, K. See Philippi, E., and Seka, R.
- Selden Co. See Canon, F. A.
- Selective Treatment Co. See Dolbear, S. H.
- Selényi, P., detection of thorium in the filaments of prepared electric vacuum lamps, A., 334.
electrolytic decomposition of glass, A., 1145.
- Seligman, R., sterilising and preserving liquids, (P.), B., 465.
- Seligmann, A., apparatus for drying and cooling gases, preferably for liquefying gas, (P.), B., 2.
method for low-temperature cooling, liquefaction, and separation of gases, (P.), B., 207.
- Seljakov, N., and Korsunski, M., eka-manganese, A., 814.
- Seljakov, N., Kurdjumov, G., and Goodtsov, N., tetragonal structure of carbon steel, A., 400.
crystal structure of carbon steels. I, A., 1128.

- Selmann, J. See Katz, J. R.
- Selter, G. E., acid formation in thiocyanate rigor in frog's muscle, A., 479.
- significance of ions in muscular function. IX. Influence of different anions on lactic acid formation and phosphoric acid exchange in minced muscle, A., 479.
- Selvig, W. A., and Fieldner, A. C., sulphur in coal and coke, B., 513.
- Semba, T. See Kameyama, N.
- Semenov, A. P., and Pavlov, V. Z., destruction of organic matter for toxicological analysis, A., 687.
- Semenoff, A. See Steinkopf, W.
- Sementschenko, W., general theory of absorption and distribution phenomena, A., 1136.
- Semeria, G. B., and Bocca, B., dioximes. XXXIX., A., 135, 341*.
- Semet-Solvay Co., and Hughes, C. H., coke ovens, (P.), B., 6.
- Semichon, L., pectins of grapes and the mellowness of wines, B., 731.
- Semichon, L., and Flanzky, M., constitution and determination of pectins and gums in grape wines and musts, B., 792.
- Semiganovsky, N., determination of the amino-group in nitroarylamines. I. Determination of nitroaniline and nitroacetanilide, A., 1062.
- Semiganovsky, N. See also Kiesel, A.
- Semmler, F. W., and Schiller, H. von, ethereal oil from the stems and roots of *Pinus silvestris* and comparison of it with the wood and needle oils of this species of pine, B., 713.
- Semp, H. See Scholl, R.
- Sempell, L., bearing metal, (P.), B., 560.
- Sample, (Miss) J. M. See Patterson, T. S.
- Sen, D. L. See Turner, A. J.
- Sen, H. D. See Watson, E. R.
- Sen, H. K., and Barat, C., ψ -urethanes. I., A., 578.
- action of cyclohexene oxide on alkali and ammonium halides, A., 762.
- Sen, H. K., and Bose, U., formation of heterocyclic compounds. II., A., 774.
- Sen, J. N., and Amin, B. M., absorption of moisture by soils, B., 308.
- Sen, K. C., adsorption by metallic hydroxides. I. Adsorption of arsenious acid by precipitated ferric hydroxide, A., 408.
- adsorption by metallic hydroxides. II. Adsorption of acids, alkali, and salts by precipitated ferric hydroxide, A., 509.
- application of kinetic theory to surface films, A., 510.
- adsorption by metallic hydroxides. III. Adsorption by precipitated aluminium hydroxide, A., 617.
- adsorption by metallic hydroxides. IV. Precipitated chromium hydroxide, A., 721.
- theory of peptisation of metallic hydroxides in presence of non-electrolytes, A., 1024.
- peptisation of iron and chromium hydroxides in presence of non-electrolytes and influence of acid and alkali on the peptisation, A., 1025.
- Sen, K. C. See also Mehrotra, M. R.
- Sen, N. R., electric field near the surface of the atoms of certain elements as deduced from the doublet separations of their spectra, A., 177.
- Sen, P. C. See Guha, P. C.
- Senderens, J. B., catalytic decomposition of formic acid, A., 445.
- Senderens, J. B., and Aboulenc, J., etherification of hydroaromatic alcohols, A., 51.
- Sendju, Y., reaction of nicotinic acid with picric and picrolonic (?) acids, A., 468.
- behaviour of vitally important amino-acids during the incubation of the hen's egg. II. Cystine and cysteine; changes in creatine and creatinine during the incubation of the hen's egg, A., 894.
- Sendju, Y. See also Komori, Y., and Tomita, M.
- Sendroy, J., jun., and Hastings, A. B., solubility of calcium salts. II. Solubility of tricalcium phosphate in salt solutions and biological fluids. III. Solubility of calcium carbonate and tricalcium phosphate under various conditions, A., 416.
- Sendroy, J., jun. See also Hastings, A. B., and Van Slyke, D. D.
- Seng, H., preparation of alloy single crystals, B., 880.
- Senior, J. K., exceptional instances of stereoisomerism, A., 226.
- Senior, J. K. See also Cislak, F. E.
- Senn, O. See Meisenheimer, J.
- Sensi, G., toxicological investigation of veronal, A., 173.
- spectroscopic detection of hydrocyanic acid in blood, A., 277.
- elimination and toxicology of veronal, A., 1219.
- Sensi, G., toxicity of the arsenobenzenes. I. Methods of determining the arsenic in the organic molecule, B., 171.
- Sensi, G., and Revello, M., toxicological detection of hydrocyanic acid, A., 276.
- Seo, K., clarifying sugar solutions, (P.), B., 122.
- Serejski, M., action of narcosis on the chemical composition of the brain, A., 376.
- Serex, P., and Goodwin, M. W., commercial gelatins; their jelly strength, gold number, and hydrogen-ion concentration, B., 420.
- Serger, H., varnish and stoving lacquers for preserve cans, B., 84.
- aluminium cans for preserving foods, B., 539.
- Serini, A. See Meerwein, H.
- Sernissy, R., [lead-bismuth] alloy, (P.), B., 195.
- Serono, C., and Guerci, L., nitrifying power of puzzuolana. II., B., 56.
- Serrano, F. B., deterioration of abaca (Manila hemp) fibre through mould action, B., 292.
- Serravaoli, V., and Weis, E., motor-fuel-testing composition, (P.), B., 274.
- Seshadri, T. R. See Dey, B. B.
- Sessions, A. C. See Beaumont, A. B.
- Sestini, Q., "Knowles'" plant for electrolysis of water, B., 785.
- Settimj, L. See Baglioni, S.
- Settimj, M., microchemical investigations of the iodine in beverages and foods, B., 958.
- micro-determination of iodine in potable waters, B., 958.
- Setzler, H. B., and National Refining Co., production of gasoline, (P.), B., 626.
- Severin, H., removal of glass from glass furnaces, (P.), B., 189*.
- Severin, S. E. See Rasenkov, I. D.
- Sevón, J. See Routala, O.
- Seward, R. P. See Kraus, C. A.
- Sewell, J. G. See Bisson, C. S.
- Sexauer, W. See Schwarz, R.
- Seydel, See Schwarzkose Söhne G.m.b.H., J. F.
- Seydel Chemical Co. See Spencer, H. McC.
- Seyer, J., and Standard Silk Dyeing Co., washable silk piece goods and process of dyeing them, (P.), B., 186*.
- Seyer, W. F., and Chalmers, W., action of phosphorus pentahalides on derivatives of *as*-methylethylethylene glycol, A., 442.
- Seyer, W. F., and Gallagher, A. F., system sulphur dioxide-*n*-octane, A., 517.
- Seyewetz, A., and Chaise, E., cold oxidation (decolorisation) of colouring matters by sodium hypochlorite in acid solution. I., A., 353.
- cold oxidation (decolorisation) of colouring matters by sodium hypochlorite in acid solution. II. Oxidation of azo-dyes, B., 696.
- Seyewetz, A. See also Lumière, A.
- Seyffert, C. See Kuhn, R.
- Sfras, M. See Levy, J.
- Shackelford, E. J., Penniman, W. B. D., Cain, J. R., and Radiac Metals, Ltd., [iron-chromium] alloy, (P.), B., 390.
- Shackelford, E. J. See also Penniman, W. B. D.
- Shackleton, W. See Hammond, C. F.
- Shadbolt, S. M., and Chemical Engineering & Wilton's Patent Furnace Co., Ltd., recovery of pyridine, phenols, oils, and other by-products from gas liquor and like ammoniacal liquors, (P.), B., 837.
- Shadduck, H. A. See Harkins, W. D.
- Shaffer, P. A. See Friedemann, T. H.
- Shafar, R. W., lime problems in the beet sugar industry, B., 499.
- Shafar, R. W. See also Gilchrist & Co.
- Shah, M. L. See Naik, K. G.
- Shaliks, W. See Fricke, R.
- Shanassy, H. See Baly, E. C. C.
- Shaner, G. A. See Garner, J. B.
- Shannon, E. V., sericite-lazulite pseudomorphs after orthoclase from Bolivia, A., 1050.
- "blythite" and the manganese garnet from Amelia, Virginia, A., 1165.
- Shapiro, C. V. See Orndorff, W. R.
- Shapiro, I. See Janney, N. W.
- Shapland, C. D., blood-sugar in the normal and diabetic [subject], A., 587.
- Shapleigh, J. H., and Hercules Powder Co., absorbing sulphur trioxide from gases containing same, (P.), B., 74.
- manufacture of [concentrated] oleum, (P.), B., 74.
- Sharkov, W. I. See Nikitin, N. I.

- Sharlit, H., Corscaden, J. A., and Lyle, W. G., influence of menstruation on the concentration of calcium in blood-plasma, A., 790.
- Sharman, C. F., application of method of magnetic spectrum to the study of secondary electronic emission, A., 287.
- Sharp, P. F., wheat and flour studies. V. Plasticity of simple flour-in-water suspensions, B., 201.
- wheat and flour studies. VIII. Composition of wheat and mill products from frozen and non-frozen wheat harvested at various stages of maturity, B., 201.
- wheat and flour studies. IX. Density of wheat as influenced by freezing, stage of development, and moisture content, B., 397.
- Sharp, P. F., and Herrington, B. L., wheat and flour studies. XI. Extraction of proteins from wheat flour, B., 761.
- Sharp, P. F., and McInerney, T. J., colorimetric determination of p_n of milk, whey, and cream, A., 70.
- relation of p_H to titratable acidity of milk, A., 1216.
- Sharp, P. F., and Schreiner, O. M., wheat and flour studies. VI. Effect of yeast fermentation on the proteins of the flour, B., 201.
- Sharp, P. F. See also Whitcomb, W. O.
- Sharp, T. M. See Henry, T. A.
- Sharp & Dohme, and Dohme, A. R. L., production of acyl-resorcinols, (P.), B., 59.
- production of alkylresorcinols, (P.), B., 156.
- Sharpe, J. S., determination of calcium in blood and urine, A., 1102.
- Sharples, P. T. See Sharples Specialty Co.
- Sharples, W. E. See Harbens (Viscose Silk Manufacturers), Ltd.
- Sharples Specialty Co., avoiding shock chill in chilling and separating substances, (P.), B., 181.
- liquid seals, (P.), B., 321.
- centrifugal machine, (P.), B., 545.
- Sharples Specialty Co., and Clark, L. H., purification of [hydrocarbon] oils, (P.), B., 7.
- Sharples Specialty Co., and Jones, L. D., separating immiscible liquids, (P.), B., 1.
- Sharples Specialty Co., Sharples, P. T., and Jones, L. D., liquid purification systems, (P.), B., 1.
- Sharples Specialty Co. See also Ayres, E. E., jun., and Jones, L. D.
- Shaver, E. H. See Glatfield, J. W. E.
- Shaw, A. See Shaw, J. E.
- Shaw, C. See Holliday & Co., Ltd., L. B., and Taylor, W. H.
- Shaw, C. F., normal moisture capacity of soils, B., 422.
- Shaw, E. H., and Reid, E. E., determination of selenium in organic compounds, A., 1101.
- Shaw, F. R. See Ingold, C. K.
- Shaw, J. E., and Shaw, A., machines for washing or otherwise treating fabrics with liquids, (P.), B., 700.
- Shaw, J. F. See Lander, C. H.
- Shaw, J. S., furnace for melting and refining glass, etc., (P.), B., 750*.
- Shaw, L. A., comparative capacity of the blood and of the tissues to absorb carbonic acid, A., 167.
- Shaw, M. B., and Bicking, G. W., production of currency paper, B., 247.
- Shaw, W. M. See Alway, F. J., and MacIntire, W. H.
- Shaw & Co., Ltd., F. See Fraser, A.
- Shaxby, J. H., density of fluids. I. Relation between density, temperature, and the latent heat of vaporisation, A., 12.
- Shaxby, J. H., and Jones, O. M., colorimetric determination of hydrogen-ion concentration, A., 221.
- Shea, J. D., and Birge, R. T., molecular constants derived from the Swan bands, A., 1121.
- Shear, M. J., and Kramer, B., fractionation of irradiated cholesterol. I. Chemical observations, A., 282.
- Shear, M. J. See also Kramer, B.
- Sheard, C., Mann, F. C., and Bollman, J. L., spectrophotometric determinations of purified bilirubin, A., 1104.
- Sheard, C. See also Davis, G. E., and Magath, T. B.
- Sheard, L., treatment of hides and skins, (P.), B., 197.
- Shearer, G., tables [of cleavage spacings] relating to long-carbon-chain derivatives, A., 97.
- orientation in solids, A., 97*.
- Shearman, C. H., apparatus for the destructive distillation of bones, (P.), B., 134.
- [electrode] for the electrification of gases [for producing ozone], (P.), B., 144.
- Shedd, O. M., influence of sulphur and gypsum on the solubility of potassium in soils and on the quantity of this element removed by certain plants, B., 22.
- rapid boiling as an aid to a shortened period of digestion in the determination of nitrogen, B., 954.
- Shedden, F. See Courtaulds, Ltd.
- Sheehy, E. J., correlation of nutritive value with dry matter content of pastures, B., 791.
- Sheldon, A. N., [machine for] the manufacture of yarn or thread, (P.), B., 649.
- Sheldon, H. H., and Estey, R. S., failure of the mercury-to-gold transmutation experiment, A., 1004.
- Shell, J. S. See Clark, G. W.
- Shellard, I. F., composition for building walls, floors, and structures, (P.), B., 412.
- Shelling, D. H. See Kramer, B.
- Sheloumova, A. See Kostytshev, S.
- Shenstone, A. G., spark spectrum of copper (Cu II), A., 389.
- spark spectrum of nickel (Ni II), A., 998.
- Shenton, J. G. See Scrivenor, J. B.
- Shepard, F. S. See Rather, J. B.
- Shepard, N. A., Krall, S., and Firestone Tire & Rubber Co., vulcanisation of rubber, (P.), B., 534*.
- Shepard, N. A. See also Stavely, F. W.
- Shepherd, E. S., and Merwin, H. E., gases of the Mt. Pelée lavas of 1902, A., 1164.
- Shepherd, M., and Ledig, P. G., rubber stopcock lubricants for high-vacuum and other uses, A., 1048.
- Shepherd, M. See also Weaver, E. R.
- Shepherd, W. C. F., and Wheeler, R. V., ignition of gases by hot wires, B., 803.
- Shepherd, W. C. F. See also Payman, W.
- Shepherdson, A. See Baddiley, J., and British Dyestuffs Corporation, Ltd.
- Sheppard, F. See Everett, M. R.
- Sheppard, S. E., adsorption of dyes on silver halides, A., 107, 306.
- electrodeposition of rubber, B., 852.
- Sheppard, S. E., and Eastman Kodak Co., fluorescent material, (P.), B., 29.
- photographic light sensitive material containing [a] tellurium, [b] selenium, (P.), B., 61*.
- utilisation of biochemical light-sensitising extracts in the art of photographic materials, (P.), B., 61*.
- Sheppard, S. E., Eberlin, L. W., and Kodak, Ltd., electrical deposition of organic materials [rubber], (P.), B., 82*.
- Sheppard, S. E., and Hudson, H., additive compounds of allylthiocarbamide with silver halides, A., 755.
- halogen acceptor theory of sensitivity and the thioanilides, B., 765.
- Sheppard, S. E., Hudson, J. H., and Eastman Kodak Co., photographic emulsion with mercury compound, (P.), B., 29.
- Sheppard, S. E., Lambert, R. H., and Eastman Kodak Co., electrolytic preparation of silver halides from metallic silver, (P.), B., 17.
- Sheppard, S. E., Punnett, R. F., and Eastman Kodak Co., preparation of photographic emulsion and material, (P.), B., 574.
- Sheppard, S. E., Sweet, S. S., and Eastman Kodak Co., photographic film and base, (P.), B., 380.
- Sheppard, S. E., and Trivelli, A. P. H., sensitivity of silver halide grains in relation to size, B., 508.
- Sheppard, S. E., Trivelli, A. P. H., and Wightman, E. P., sensitising specks on silver halide grains, B., 508.
- Sheppard, S. E., and Wightman, E. P., silver sulphide sensitising by bathing, B., 508.
- Sheppard, S. E. See also Kodak, Ltd., and Wightman, E. P.
- Sher, H. C. See McCluskey, K. L.
- Sherbino, M. R., and Hydraulic Brake Co., non-corrosive liquid for fluid systems, (P.), B., 207.
- Sheridan, T. H. See Terry, J. T.
- Sherman, E. See Hess, A. F.
- Sherman, H. C., and Axtmayer, J. H., multiple nature of vitamin-B, A., 1223.
- Sherman, H. C., and Burton, G. W., effect of p_H on rate of destruction of vitamin-B by heat, A., 79.
- Sherman, H. C., Caldwell, M. L., and Adams, M., enzyme purification by adsorption: pancreatic amylase, A., 74.
- optimal hydrogen-ion activities for the enzymic hydrolysis of starch by pancreatic and malt amylases under varied conditions of time and temperature, A., 992.

- Sherman, H. C., Caldwell, M. L., and Dale, J. E., influence of sodium acetate, borate, citrate, and phosphate on the activity of pancreatic amylase, A., 1220.
- Sherman, H. C., and Gloy, O. H. M., relation of protein intake to requirement and determination of vitamin-B, A., 905.
- Sherman, H. C., and Hessler, M. C., quantitative differentiation of vitamins-A and -D, A., 702.
- Sherman, H. C., and MacArthur, E. H., determination of vitamin-B, A., 905.
- Sherrard, E. C. See Marten, E. A.
- Sherrick, P., oven-drying method for the determination of moisture in cottonseed meal, B., 667.
- Sherwin, C. P., Shiple, G. J., and Rose, A. R., sulphur metabolism, A., 792.
- Sherwin, C. P. See also Harrow, B., and Miriam, S. R.
- Sherwood, D. W. See Jackson, H., jun.
- Sherwood, R. C., and Bailey, C. H., control of diastatic activity in wheat flour. I. Production of diastatic flour and effect of large dosages, B., 201.
- control of diastatic activity in wheat flour. II. Experiments with flour milled on a commercial scale, B., 201.
- Sherwood, R. C. See also Bailey, C. H.
- Shestakov, P. See Petrov, G.
- Shiba, K., the characteristic equation of gases, A., 195.
- Shibata, K., constitution of proteins, A., 891.
- Shiiko-Parkhomenko, K. K., speed of absorption of moisture by granulated sugar, B., 263.
- Shilling, W. G., calculation of the molecular heats of gases from equilibrium constants, A., 12.
- velocity of sound in steam, nitrous oxide, and carbon dioxide, with special reference to the temperature coefficient of the molecular heats, A., 301.
- Shimadzu, G., continuous production of lead oxides in the dry state, (P.), B., 195.
- Shimamoto, S., treatment of pulverised vegetable fuels, (P.), B., 693.
- Shimer, W. R., and Bethlehem Steel Co., steel of high-temperature stability, (P.), B., 415, 754*.
- Shimidzu, M., new method of chrome tannage, B., 261.
- determination of crystal orientation in metallic single crystals, A., 1012.
- Shimo, K., derivatives of hydroxyphenylglycine. II., A., 49.
- Shimomura, A. See Nakamura, K.
- Shimomura, K., value of low-temperature tar as the carburetting oil for water gas, B., 641.
- Shimoyama, K. See Atsuki, K.
- Shinoda, J., constitution of gentisin, A., 1083.
- Shinosaki, H., and Makino, H., kuromoji oil, A., 799.
- Shinosaki, H., Nagasawa, T., and Makino, H., Japanese pepper-mint oil, B., 571.
- Shiple, G. J. See Sherwin, C. P.
- Shiple, J. W., and Goodeve, C. F., law of alternating-current electrolysis and the electrolytic capacity of metallic electrodes, B., 633.
- Shiple, S. de V., and Atlas Powder Co., reducing the viscosity of nitrocellulose and other cellulose esters, (P.), B., 774.
- Shippee, A. E., and Stone & Webster, Inc., manufacture of carburetted water-gas, (P.), B., 625.
- Shirado, M., vapour pressure of aqueous hydrocyanic acid at 18°, A., 627.
- densities of hydrocyanic acid-water mixtures, A., 719.
- Shirado, M. See also Bredig, G.
- Shirai, T., density of water vapour, A., 403.
- Shiratori, K., variation of radioactivity of hot springs, A., 1004.
- Shireman, A. F., assay of phosphoric acid and the sodium phosphates, A., 331.
- Shirk, L. H., and Montonna, R. E., critical analysis of equations for the design of fractionating columns, B., 735.
- Shirley, S. C. See Mathers, F. C.
- Shita, K., and Yanagigawa, T., proteins. I. Amino-acids of soya-bean meal. II. Amino-acids of herring meal, B., 590.
- Shjler, K., apparatus for the extraction of oils and fats [from fish, etc.], (P.), B., 946.
- Shoda, M., leucocyte lipase, A., 590.
- hydrogen-ion concentration during fat hydrolysis by pancreatic steapsin and bile acids; relation between the structure of bile acids and the lipolytic activity, A., 590.
- Shoda, M. See also Arakatsu, B., and Karasawa, R.
- Shoemaker, H. A. See Everett, M. R.
- Shoemaker, R. J., and Leadizing Co., [lead] plating method, (P.), B., 144.
- Shoesmith, J. B., and Connor, R. J., preparation and hydrolysis of the isomeric *p*-tolylethyl bromides, A., 962.
- action of phosphorus pentabromide on the isomeric β -methoxy-phenylethyl alcohols, A., 1066.
- Shoesmith, J. B., and Rubli, H., 5-methoxy- α -naphthaldehyde, A., 152.
- Shoesmith, J. B., Sosson, C. E., and Hetherington, A. C., abnormal reaction of certain aromatic aldehydes with Schiff's reagent, A., 1074.
- Shoesmith, J. B., and Taylor, W. E., preparation and hydrolysis of isomeric azoxybenzyl bromides, A., 50.
- Shohl, A. T., and Bennett, H. B., rickets in rats. III. Calcium and phosphorus metabolism of rats on restricted diets, A., 988.
- Shohl, A. T., and Karelitz, S., carbon dioxide tension of cerebrospinal fluid, A., 169.
- Shohl, A. T. See also Karelitz, S., and Standish, W. A.
- Shoji, H., plasticity of metals. I., B., 15*.
- Shoji, H., and Mashiyama, Y., plasticity of metals. II., B., 15*.
- Shokin, I. N. See Yushkevich, N. F.
- Shollenberger, J. H., and Coleman, D. A., relation of kernel texture to the physical characteristics, milling and baking qualities, and chemical composition of wheat, B., 396.
- Shono, T., condensation products of phenols and aldehydes. V. Substance, $C_{14}H_{16}O_2N$, isolated from the condensation products of phenol and formaldehyde, using ammonia as catalyst. VI. Decolorisation of the insoluble and infusible condensation product of phenol and formaldehyde, A., 456.
- Shook, A. M., and Aquazone Corporation, making aqueous solutions and the product, (P.), B., 389.
- Shope, R. E., sugar and cholesterol in the blood-serum in relation to fasting, A., 1217.
- Shoppee, C. W. See Rothstein, E.
- Short, J. J., and Gellis, A. D., determination of blood-chlorides, A., 689.
- Short, W. F., fenchene series. I. Synthesis of *apofenchone*-camphoric acid, A., 670.
- Shoshin, A. A., high-dispersion phase of black alkali soils, B., 588.
- Shoulejkin, W., measurement of evaporation of sea-water, A., 627.
- Shretzova, O. See Kostytshev, S.
- Shrewsbury, H. S., relations of the Manley and Reichert figures for butter analysis, B., 608.
- Shriner, R. L., Nabenhauer, F. P., and Anderson, R. J., corn [maize] wax, A., 798.
- Shriner, R. L. See also Anderson, R. J.
- Shrum, G. M., Carter, N. M., and Fowler, H. W., 1s-*md* series of caesium and the other alkali metals, A., 178.
- Shukla, P. P., influence of the sulphur atom on optical rotatory power, A., 1196.
- Shukov, I. I., smooth electrodes for p_H and conductivity measurements, A., 743.
- Shul'gina, O. See Kostytshev, S.
- Shutt, F. T., relation of the protein content of maize to its specific gravity, A., 597.
- influence of early and late planting and sprouting on the yield and dry matter content of potatoes, A., 597.
- correlation between specific gravity, total solids, and starch content of potatoes, A., 597.
- coumarin content and nutritive value of selected types of sweet clover, A., 597.
- fertilisers, B., 587.
- availability of phosphoric acid in slags and natural rock (Florida) phosphate, B., 588.
- Shutt, W. J. See Foxton, F.
- Shuttleworth, L. See Dorman, Long & Co., Ltd.
- Sibi, (Mlle.) M. See Thomas, P.
- Sibor, S. A., Verreries de Romont, production of a sodium-aluminium borosilicate glass, (P.), B., 189*.
- Siderfán, N. E. See Hollings, H.
- Sidery, A. J. See Sutton, H.
- Sidorin, M. L., assimilation of iron by plants, A., 79.
- Siebe, P., influence of sulphur on copper, B., 752.
- annealing metal wires, B., 880.
- Siebe, P., and Katterbach, L., structure and surface-formation of cast copper, B., 488.
- Siebenlist, (Frl.) E. See Feist, K.
- Siebenmann, K. See Bredig, G.
- Siedentopf, K. See Halban, H. von.

- Siedler, P. See I. G. Farbenind. A.-G.
- Siefken, W. See Lecher, H.
- Sieg, E., accumulator [plate], (P.), B., 583.
- Siegel, W., manufacture of sodium fluoride from hydrofluosilicic acid, (P.), B., 189.
- manufacture of alkaline potassium compounds, (P.), B., 841.
- mechanism of the preparation of "sublimed sal-ammoniac"; molten ammonium chloride, B., 875.
- Siegelberg, H. See Bosse, J. von.
- Sieghelm, F., manufacture of double-walled glass flasks, (P.), B., 333.
- Siegl, A., contact poisons, especially in the catalytic formaldehyde process, B., 891.
- Siegler, A., special action of nickel on normal human sera, A., 587.
- Siegler-Soru, (Mlle.) E., ultra-violet spectrum of potassium nitrate, and its variations as a function of p_n , A., 6.
- Siemens, F., Akt.-Ges., and Bähr, H., conversion of hydrogen sulphide into sulphurous acid, (P.), B., 252.
- recovery of sulphur compounds of ammonia in the form of salts from gas mixtures containing sulphuretted hydrogen and ammonia, (P.), B., 358*.
- Siemens, W. See Arnd, T.
- Siemens Brothers & Co., Ltd., and Salmon, L. G., optical pyrometer, (P.), B., 634.
- Siemens-Elektrowärme-Ges.m.b.H., bright-annealing furnaces, (P.), B., 115.
- electric bright-annealing furnace, (P.), B., 528.
- working bright-annealing furnaces, (P.), B., 970.
- Siemens & English Electric Lamp Co., Ltd., and Oakley, P. D., [filling for] gas-filled electric lamps, (P.), B., 529.
- Siemens & English Electric Lamp Co., Ltd., Oakley, P. D., and Aldington, J. N., frosting glass, (P.), B., 654.
- Siemens Gebrüder & Co., electrical resistor containing silicon and carbon, (P.), B., 257.
- production of articles containing silicon carbide, (P.), B., 723.
- Siemens & Halske A.-G., method of increasing the ohmic resistance of pure iron, especially electrolytic iron, (P.), B., 223.
- separation of metals which form volatile compounds, (P.), B., 224.
- method and means for producing galvanic chromium coatings on hollow articles, especially on narrow tubes, (P.), B., 256.
- producing artificial [nitrogenous] manures, (P.), B., 263.
- production of a hard body from asbestos, (P.), B., 389.
- electric fuse, (P.), B., 450.
- gas-testing apparatus with pressure gauges, more particularly flue-gas testers, (P.), B., 645.
- electrolytic refining of copper, (P.), B., 683.
- improving mineral oils and tar products, (P.), B., 695.
- apparatus for galvanic processes, e.g., chrome-plating, (P.), B., 881.
- treatment of organic liquids [hydrocarbons] with alternating electric discharge, (P.), B., 901.
- Siemens & Halske A.-G., and Duhme, E., manufacture of metal alloys, (P.), B., 114.
- Siemens & Halske A.-G., Engelhardt, H., and Engelhardt, K., ageing of alcoholic liquors, etc., (P.), B., 793.
- Siemens & Halske A.-G., and Fetkenheuer, B., production of hafnium from its ores, (P.), B., 448.
- Siemens & Halske A.-G., and Grüss, H., filtering arrangement for a flue-gas recorder, (P.), B., 465.
- Siemens & Halske A.-G., and Hänsel, G., electrolytic refining of copper containing tin, (P.), B., 491.
- Siemens & Halske A.-G., and Harries, C., refining tars, (P.), B., 596.
- Siemens & Halske A.-G., and Hartmann, C. A., production of [layers of] especially hard carbon [upon other material], (P.), B., 467.
- Siemens & Halske A.-G., Hosenfeld, M., and Walde, H., electro-deposition of chromium, (P.), B., 786.
- Siemens & Halske A.-G., and Masing, G., protection of metal articles [against attack by molten metals of low m. p.], (P.), B., 491.
- protection of metals which come into contact with lower-melting metals, (P.), B., 583.
- deoxidation of copper and its alloys, (P.), B., 847.
- Siemens & Halske A.-G., and Werner, O., measurement of soil moisture, (P.), B., 343.
- Siemens & Halske A.-G. See also Becker, H., Billiter, J., Friderich, L., and Keinath, G.
- Siemens-Schuckertwerke G.m.b.H., means for regulating the admission of steam to a heat accumulator, (P.), B., 66*.
- determining the dust content of gases, (P.), B., 241.
- methods and apparatus for the electrical purification of gases, (P.), B., 391.
- removing residual gases from the metal casings of electric discharge tubes, (P.), B., 450.
- manufacture of resinous insulating and impregnating materials, (P.), B., 452.
- drying electric bright-annealing furnaces, (P.), B., 491.
- bright-annealing [muffle] furnace, (P.), B., 561.
- crucible [for metals], (P.), B., 583.
- electric bright-annealing furnace, (P.), B., 659.
- electrical purification of gases, (P.), B., 660.
- absorption refrigerating or heating machine, (P.), B., 689, 802.
- bright-annealing furnace, (P.), B., 784.
- [electric] bright-annealing furnace [with liquid sealing], (P.), B., 785.
- apparatus for the electrolytic purification of water, especially boiler-feed water, (P.), B., 830.
- hermetically closing the annealing chambers of annealing furnaces, (P.), B., 848.
- separation of salts from solutions containing them, (P.), B., 937.
- Siemens-Schuckertwerke G.m.b.H., and Abendroth, W., vapour-generating systems, (P.), B., 321.
- Siemens-Schuckertwerke G.m.b.H., and Hahn, C., electrical gas-purifying plant, containing alternate discharge and precipitation electrodes placed transversely to the gas stream, (P.), B., 530.
- electrical gas-purifying apparatus, (P.), B., 607.
- Siemens-Schuckertwerke G.m.b.H., and Heinrich, R., apparatus for the electrical purification of gases, (P.), B., 288.
- discharge electrodes for electrical gas-purifying apparatus, (P.), B., 914.
- Siemens-Schuckertwerke G.m.b.H., and Heræus-Vacuum-schmelze Akt.-Ges., electric resistance furnace for bright annealing, (P.), B., 115.
- Siemens-Schuckertwerke G.m.b.H., Heræus-Vacuumschmelze Akt.-Ges., and Rohn, W., electric furnaces for bright annealing, (P.), B., 17.
- electric furnace, (P.), B., 257.
- Siemens-Schuckertwerke G.m.b.H., and Müller, Fritz, apparatus for the uniform distribution of the gas stream in electrical gas-purification plants, (P.), B., 660.
- Siemens-Schuckertwerke G.m.b.H., and Vaupel, A., treatment of woods impregnated with tar oil, (P.), B., 843.
- Siemens-Schuckertwerke G.m.b.H. See also Altenkirch, E.
- Sierp, F., purification of sewage by activated sludge at Essen-Rellinghausen, B., 93.
- Sierra, J. M., manufacture of milk powder, (P.), B., 732*.
- Siesbye, I. See Andersen, F. J. E.
- Siever, H. L. See Smith, R. B.
- Sievers, F. J., and Holtz, H. F., significance of nitrogen in soil organic matter relationships, B., 263.
- Sievers, O. See I. G. Farbenind. A.-G.
- Sieverts, A., and Gotta, A., heat of formation of copper hydride, A., 521.
- Sieverts, A. See also Huber, H.
- Sigaud, M. See Malfitano, G.
- Sigmond, A. A. J. von, determination of exchangeable cations, degree of saturation, and relative acidity of soils, B., 309.
- Sigmund, F., and Marchart, G., behaviour of aldehydeacetals on hydrogenation; formation of ethers from acetals, A., 1054.
- Signer, R. See Staudinger, H.
- Sigova, M. P. See Salkind, J. S.
- Sikorski, S. F. See Grischkevitch-Trochimovski, E.
- Silbereisen, K. See Lüers, H.
- Silbernitz, V. A., and Rozhkova, L. V., determination of vanadium in iron minerals and rocks, B., 559.
- Silberrad, O., manufacture of aldol and crotonaldehyde from acetaldehyde, (P.), B., 669.
- Silberrad, O. See also Levy, L. A.
- Silberstein, F., Freud, J., and Révész, T., replacement of sugar by other substances in the removal of hypoglycæmic symptoms caused by insulin, A., 380.
- Silberstein, L., and Tuttle, C., relation between the specular and the diffuse photographic densities, B., 621.
- Silberstein, L. See also Bertrand, G.

- Silesia Verein Chem. Fabr., process for oxidising organic compounds, (P.), B., 829.
 accelerating vulcanisation [of rubber], (P.), B., 948.
 Šilhavý, See Stoklasa, J.
 Silica Gel Corporation, and Holden, E. C., method and apparatus for adsorbing a gas or vapour from mixtures thereof, (P.), B., 241.
 Silica Gel Corporation, Hutchinson, E. W., and Plews, W. J., drying of charged battery plates, (P.), B., 944.
 Silica Gel Corporation, and Krull, F. B., adsorption apparatus, (P.), B., 688.
 Silica Gel Corporation, Miller, E. B., and Edel, W. L., refrigerating apparatus, (P.), B., 640.
 method and apparatus for refrigeration, (P.), B., 690.
 Siller, A. See Heller, G.
 Sillers, F., jun., crystal structure of electrodeposited chromium, A., 502.
 Silliman, H. E. See Flammer, E. F.
 Silmo Chemical Co. See Miller, W. E.
 Silten, E., making therapeutic materials, (P.), B., 460.
 Siluminite Insulator Co., Ltd. See Brown, A. H.
 Silva, M. S. See Cournot, J.
 Silver, C. A. See Burgess Laboratories, Inc., C. F.
 Silver Springs Bleaching & Dyeing Co., Ltd., and Hall, A. J., development of photographic plates, films, etc., (P.), B., 461.
 dyeing furs, hairs, skins, and feathers, (P.), B., 475.
 rendering cellulose acetate silk, etc., resistant to hot or boiling aqueous liquors, (P.), B., 964.
 Silver Springs Bleaching & Dyeing Co., Ltd., Mason, F. E., and Hall, A. J., mercerising or otherwise treating with caustic alkalis textile materials containing viscose artificial silk, (P.), B., 776.
 Silvers, S. H. See Talbert, G. A.
 Sim, J., apparatus for de-aërating water, (P.), B., 462.
 Simanuki, H. See Majima, R.
 Simmat, W. See I. G. Farbenind. A.-G.
 Simmonds, C. S., [adjustable frame for portable] mixing apparatus, (P.), B., 208.
 Simmonds, N., Becker, J. E., and McCollum, E. V., relation of vitamin-B to iron assimilation, A., 1224.
 Simmons, C. W. See Cantelo, R. C.
 Simmons, J. P., and Pickett, C. F., direct oxidation of lithium iodide, A., 429.
 Simmons, R. H. See Cable, D. E.
 Simmons, W. H., analysis of isopropyl alcohol, B., 504.
 Simms, H. S., and Levene, P. A., graphical interpretation of electrometric titration data, A., 35.
 Simola, P. E., action of "synthalin" in the animal organism, A., 900.
 Simon, A., oxides; density and crystal structure of the oxides of antimony, and the nature of the oxygen linking, A., 1013.
 Simon, A. [with Fischer, O., Glauner, R., and Ehling, L.], simple, automatic cryostat, A., 335.
 Simon, A., and Fischer, O., simple automatic temperature regulator without relays, A., 747.
 Simon, A., Kötschau, K. [with Gutmann, W., and Buss, G.], active iron, A., 843.
 Simon, A., and Thaler, E., hydrogels. III. Hydrates of antimony pentoxide, A., 510.
 hydrogels. IV. Hydrates of arsenic pentoxide, A., 511.
 oxides. III. Oxides of antimony, A., 730.
 Simon, A. See also Simon, L. J.
 Simon, Alexander, thyroxine in intermediate metabolism, A., 1223.
 Simon, E. See Neuberg, C.
 Simon, F., method for obtaining very low temperatures, A., 100.
 Simon, L. J., and Hinchley, J. W., plant for fat extraction, B., 48.
 Simon, L. J., Simon, A., and Simon Bros. (Engineers), Ltd., extraction of oils, fats, waxes, greases, etc., (P.), B., 49.
 Simon, L. J., and Simon Bros. (Engineers), Ltd., apparatus for the distillation of solvents in connexion with the extraction of oils, fats, waxes, etc., (P.), B., 946.
 Simon Bros. (Engineers), Ltd. See Simon, L. J.
 Simon, Ltd., H. See Denham, H. J.
 Simon-Carves, Ltd., and Brown, J. H., regenerativo coke ovens, (P.), B., 740.
 Simon-Carves, Ltd., and Clark, B. F., furnace walls, (P.), B., 897.
 Simon-Carves, Ltd., and Robinson, A., draining or straining coal and other slimes, (P.), B., 6.
 draining and concentrating coal and other slimes, (P.), B., 466.
 Simon-Carves, Ltd. See also Robinson, A.
 Simonds, F. M., and Hyde, A. F., ore furnace, (P.), B., 753.
 method of treating [sulphide] ores, (P.), B., 819.
 Simonis, H., and Danischewski, S., applicability of the Friedel-Crafts reaction to the production of flavones, A., 154.
 Simonis, H., and Lear, C., syntheses of chalkones, A., 154.
 Simonis, O., and Liquid Air, Ltd., liquid air oxygen-producing plant, (P.), B., 482.
 Simonnet, H., and Tanret, G., hypoglycæmic properties of galegine sulphate, A., 991.
 Simonnet, H. See also Fabre, R.
 Simons, E. See Edlbacher, S.
 Simons, J. H., condensation of a gas mixture to form an ideal solution, B., 399.
 Simonsen, J. L. See Bhagvat, M. B., Bhattacharya, R., Iyer, S. N., Kanga, D. D., Menon, K. N., Mirchandani, T. J., and Nair, S. U.
 Simplex Refining Co. See Kramer, G. A., and Pyzel, D.
 Simplex Wire & Cable Co., Boggs, C. R., and Blake, J. T., rubber compounds and articles, (P.), B., 533.
 Simpson, A. J. See Perrett, I. G.
 Simpson, E. See Dunlop Rubber Co.
 Simpson, J. A. See Willimott, S. G.
 Simpson, J. T., mixing machine, (P.), B., 575.
 Simpson, K. M., low-temperature carbonisation of coals, etc., (P.), B., 644.
 Simpson, T. R., and Minerals Separation North American Corporation, [floatation] concentration of metalliferous ores, (P.), B., 784.
 Simpson, V., and Knight, N., alcohol in bread, B., 590.
 Simpson, W. W., and Macleod, J. J. R., post-mortem changes in the free sugar, glycogen, phosphates, and lactic acid in mammalian muscle, A., 479.
 Sinclair Refining Co. See Bell, J. E., Herthel, E. C., Isom, E. W., Miller, A. E., Parmelee, C. L., and Phillips, E. B.
 Singer, F., manufacture of stoneware highly resistant to perforation by the electric spark, (P.), B., 908.
 Singer, H. See Grafe, E.
 Singer, K., chemistry of the brain. I. Nitrogen distribution in the fractions of horse brain soluble in light petroleum, A., 371.
 Singh, B. K., and Rai, R., dependence of optical activity on chemical constitution. VII. Stereoisomeric aryl derivatives of imino- and bisimino-camphor and their absorption spectra, A., 569.
 Singh, M., and Singh, R., [camphorchloroanilic] acids and camphorchlorophenylimides, A., 1082.
 Singh, R. See Singh, M.
 Singleton, W., detection and determination of the platinum metals, A., 641.
 analysis of steels, B., 191.
 Singleton, W. See also Dudding, B. P.
 Singmaster, J. A. See New Jersey Zinc Co.
 Sinha, N. N. See Mittar, P. C.
 Sinnatt, F. S., problems encountered in preparing coal for the market, B., 640.
 Sinnatt, F. S., King, J. G., and Linnell, W. H., tars and oils produced from coal. II., B., 37.
 Sinnatt, F. S. See also Jenkins, S. H., Moore, B., and Newall, H. E.
 Sinozaki, H., Hara, R., and Mitsukuri, S., vapour pressures of hydrogen cyanide, A., 404.
 Sircar, A. C., and De, P. K., ring-formation, A., 50.
 Sircar, S. S. G., influence of groups and associated rings on the stability of heterocyclic systems. I. Substituted glutarimides, A., 451.
 influence of groups and associated rings on the stability of heterocyclic systems. II. Substituted succinimides. III. Substituted paraconic acids, A., 756.
 Sirkin, Z. N. See Viktorov, P. P.
 Sisley, P. See Morel, A.
 Sismondi, R. See Ponzio, G.
 Sisojev, A., E.M.F. of flames, A., 523.
 Sivade, A., means for cleaning sand filters of large surface, (P.), B., 238*.
 Sivertz, V. See Davies, E. C. H.
 Sivó, R., normal bilirubin content of human sera, A., 1214.
 Sivó, R., and Forrai, E., instability of bilirubin and detection of bilirubin in urine, A., 1216.
 Sivó, R. See Forrai, E.
 Sizer, A. W., separation of solid materials from meal or powder, (P.), B., 896.

- Sizoo, G. J., De Haas, W. J., and Onnes, H. K., magnetic disturbance of the superconductivity of tin, A., 717.
- Sizoo, G. J., and Onnes, H. K., properties of superconducting metals in the form of thin films, A., 716.
- influence of elastic deformation on the superconductivity of tin and indium, A., 717.
- Sizoo, G. J. See also De Haas, W. J.
- Sjöberg, K., fission of starch by *Saccharomyces sake*, A., 279.
- Sjollema, B., blood-sugar. I. Fractionation of the reducing substances in blood-filtrates, A., 476.
- blood-sugar. II. Magnitude of non-dextrose fraction under various conditions, A., 789.
- blood-sugar. III. Non-dextrose of blood-filtrates, A., 1102.
- Sjollema, B., and Seekles, L., limited applicability of Nessler's reagent for determination of nitrogen, A., 583.
- Skancke, R., and Schreiner, E., dielectric constants of dilute aqueous solutions of electrolytes, A., 932.
- Skanska Cement Aktiebolaget, controlling the rate of setting of hydraulic binding materials, (P.), B., 603.
- Skau, E. L. See Kriebel, V. K.
- Skaupy, F., and Daudt, W., electron stream and space charge in dense gases, A., 603.
- Skaupy, F. See also Patent-Treuhand-Ges. für elektrische Glühlampen m.b.H.
- Skeen, J. R., effects of some electrolytes on kaolin and the probable relations to the soil, B., 587.
- Skellett, A. M., hot-wire vacuum gauge, A., 954.
- Skellett, A. M. See also Hughes, A. L.
- Skerstchly, W. P. See British Celanese, Ltd.
- Skinner, C. E., effect of protozoa and fungi on certain biochemical processes when inoculated into partially sterilised soil, B., 556.
- Skinner, D. G., and Graham, J. I., hydrogenation and liquefaction of coal. IV. Hydrogenation of cannel coal, B., 242.
- Skinner, E. W. See Stewart, G. W.
- Skinner, H. W. B., polarisation of mercury lines emitted from a discharge tube in a magnetic field, A., 285.
- Skinner, L. R., wort boiling, B., 374.
- Skirow, F. W., Herzberg, O. W., and Canadian Electro Products Co., Ltd., manufacture of vinyl esters [acetate], (P.), B., 859.
- Skita, A., preparation of hydrogenated polynuclear quinones, (P.), B., 398.
- Skita, A., and Wulff, C., syntheses of amino-acids, A., 559.
- α -imino- and α -amino-acids from amines and carbonyl compounds, A., 765.
- Skita, A., and Wulff, C. [with Fehr, C., Winterhalder, W., and Meetz, A.], hydrogenated phenylquinolines and determination of the constitution of "decahydroatophan," A., 157.
- Skobelzyn, D., energy distribution in the γ -radiation of radium-C, A., 710.
- Skoglund, J. V., manufacture of sulphuric acid, (P.), B., 331*.
- Skola, W., prolonging the life of refractory material, B., 483.
- Skopnik, A. von, manufacture of pure naphthalene, B., 358.
- Skowronski, S., and Reinoso, E. A., specific resistivity of copper-refining electrolytes and method of calculation, B., 368.
- Skrabal, A., meaning of the time-effect in the formation of hydrogen bromide from its elements, A., 188.
- general equation of chemical kinetics and its significance; rate of hydrolysis of "organic oxides," A., 942.
- Skrabal, A., and Bilger, F., velocity of hydrolysis of acetone, A., 1148.
- Skrabal, A., and Gitschthaler, E., kinetics of the hydrolysis of glyoxal tetra-acetate, A., 1036.
- Skrabal, A., and Hugetz, A. M., influence of the alcohol component on velocity of hydrolysis of acetic esters, A., 27.
- Skrabal, A., and Zahorka, A., kinetics of the stages in the Landolt reaction, A., 319.
- kinetics of the hydrolysis of vinyl acetate, A., 1148.
- Skrabal, A., and Zlateva, M., velocity of hydrolysis of pentaerythritol tetra-acetate, A., 27.
- Skraup, S., and Beifuss, W., superheating of uniform organic compounds. IV. *cyclohexane* derivatives, A., 659.
- problem of benzene substitution. II. Displacement of isomeric relationships by acids, A., 659.
- Skraup, S., and Beng, E., superheating of uniform organic compounds. III. Aryl esters of unsaturated acids, A., 560.
- Skundina, S. See Glassmann, B.
- Slack, F. G., intensity dissymmetry for the Stark effect in hydrogen, A., 391.
- Slade, R. E. See Synthetic Ammonia & Nitrates, Ltd.
- Slansky, P., drying of fatty oils; gas-coagulation of linseed oil, B., 787.
- Slansky, P., and Deutsche Linoleum-Werke Hansa, manufacture of linoleum cement, (P.), B., 119*.
- Slate, T. B., process and apparatus for refrigeration, (P.), B., 176.
- Slater, F. P., structural picture of the cotton hair as an aid to the interpretation of some phenomena, B., 551.
- Slater, J. C., radiation and absorption on Schrödinger's theory, A., 291.
- action of radiation and perturbations on atoms, A., 495.
- structure of the helium atom. I, A., 808.
- Slater, L., study of the swelling power of coal at different rates of carbonisation, B., 242.
- Slater, R. H. See Kermack, W. O.
- Slater, W. K., aerobic and anaerobic metabolism of the common cockroach (*Periplaneta orientalis*). II, A., 270.
- Slater, W. K. See also Davis, J. G.
- Slattery, (Miss) M. K. See Howes, H. L., and Wick, (Miss) F. G.
- Slauck, A., effect of iodine on protein and sodium chloride equilibria in man, A., 481.
- Slepian, J., Haverstick, E. J., and Westinghouse Electric & Manufacturing Co., electrolyte for electrolytic [rectifying] cells, (P.), B., 17.
- Slifski, J. See Weil, S.
- Slipher, J. A., rate of soil liming, B., 498.
- Slosser, A. J., and Pompeiani Flooring Co., production of a plastic composition and articles therefrom, (P.), B., 724.
- Slotta, K. See Biltz, H.
- Slotta, K. H., and Tschesche, R., carbimides. II. Transformations of methylcarbimide under the influence of triethylphosphine, A., 346.
- carbimides. III. The principle of symmetry in the formation of trimethylcyanuric esters, A., 346.
- carbimides. V. Condensations of methylcarbimide, particularly with hydrocyanic acid, A., 548.
- carbimides. IV. 1:3:5-Oxadiazines, A., 578.
- Slovzov, B. I., and Astanin, P. P., preparation of the sodium salts of the higher unsaturated acids of cod-liver oil, A., 696.
- Smaill, A. E. See Mabec, H. C.
- Smakula, A., absorption spectra of alkali halide phosphors containing silver and copper, A., 1125.
- Small, J., hydrogen-ion concentration of plant tissues. I. Method, A., 1225.
- Small, J. See also Rea, M. W.
- Smalley, O., and Hodson, F., manufacture of steel in "one process" direct from ore, B., 781.
- Smallwood, A., and Fallon, J., furnaces [for preheating, etc.], (P.), B., 434*.
- [annealing] furnaces, (P.), B., 705.
- Smekal, A., molecular theory of solidity and solidification, A., 192.
- size of the ideal synthesised lattice-range in true crystals, A., 1012.
- Smith & Co., F. L. See Fasting, J. S., Smith & Co. A./S., F. S., and Vogel-Jorgensen, M.
- Smith & Co., A./S., F. S., and Smith & Co., F. L., fine grinding of cement or the like in ball or tube mills, (P.), B., 141.
- Smiles, S. See Brooker, L. G. S., and Hurlley, W. R. H.
- Smirich, G., analysis of flours, B., 313.
- Smirk, F. H., micro-determination of chlorine in whole blood-serum or corpuscles, A., 271.
- micro-determination of iron in blood, A., 271.
- Smirova, M. I. See Ivanov, N. N.
- Smit, W. C. See Böeseke, J.
- Smith, A. B., and Smith, C. R., mixing apparatus, (P.), B., 896.
- Smith, A. D., and Perl, J., [cracking] treatment of heavy hydrocarbons, (P.), B., 961.
- Smith, A. H. See Levine, H.
- Smith, A. K., Prutton, C. F., and Dow Chemical Co., treatment of brine, (P.), B., 628.
- Smith, A. M., destructive distillation of solid bituminous materials, (P.), B., 6.
- factors influencing efficiency of different forms of nitrogen as related to soil type and cropping system in the Atlantic coastal plain region. I, B., 308.
- [exchangeable bases in soil], B., 886.
- Smith, A. R. See British Thomson-Houston Co., Ltd.
- Smith, A. W., cast iron with high manganese content from smelting manganiferous iron ores by the Siemens-Martin process, B., 486.

- Smith, A. W., Adams, C. S., and Pease, C. S., ultra-violet absorption spectra of cyclohexene, ethyl ether, methyl *n*-amyl ether, and ethylenechlorohydrin, A., 608.
- Smith, A. W., and Muskat, M., absorption spectra of gallium, indium, manganese, chromium, nickel, and cobalt in under-water sparks, A., 607.
- Smith, C. C., determination of iodine in mother-liquor and in wash-liquors, B., 701.
- Smith, C. C. See also MaeLaurin, R. D.
- Smith, C. G. See Raytheon Manufacturing Co., and Thorne, P. C. L.
- Smith, C. H., and Goodyear Tire & Rubber Co., method of treating balatas and gutta-perchas, (P.), B., 229.
- Smith, C. J., differential dilatometer for the determination of volume changes during solidification, A., 954.
- Smith, G. R. See Richardson, C. H., and Smith, A. B.
- Smith, C. S., cathodic disintegration as a method of etching specimens for metallography, B., 969.
- Smith, D. F., rate of racemisation of pinene; a first-order homogeneous gas reaction, A., 212.
- equilibrium conditions in the formation of hydrocarbons and alcohols from water-gas, B., 593.
- Smith, E. A. C., and Guggenheim Bros., metallurgy of tin, (P.), B., 369.
- Smith, E. A. C. See also Guggenheim, D.
- Smith, E. F., soluble metatungstates, A., 950.
- Smith, E. L., interaction of potassium *m*-tolylxide with aliphatic esters in aqueous-alcoholic solutions, A., 213.
- determination of small quantities of water in alcohol, B., 570.
- dehydration of alcohol, B., 570.
- Smith, E. V., and Thompson, T. G., occurrence of hydrogen sulphide in the Lake Washington Ship Canal, B., 622.
- salinity of the Lake Washington Ship Canal, B., 862.
- Smith, E. W., utilisation of gas coke, B., 435.
- Smith, E. W., Finlayson, T. C., and Woodall-Duckham (1920), Ltd., removal of sulphuretted hydrogen from gas, (P.), B., 437*.
- Smith, E. W. See also British Furnaces, Ltd.
- Smith, Ernest Waller. See Ingold, C. K.
- Smith, F. A., source of error in conductivity measurements, A., 1031.
- conductivity of acids and salts in liquid ammonia, A., 1032.
- Smith, F. B. See Miller, S.
- Smith, F. C., apparatus for cooling or otherwise treating liquids with gases or gases with liquids, (P.), B., 2.
- Smith, F. C. See also Visco Engineering Co., Ltd.
- Smith, F. F. P. See McCombie, H.
- Smith, F. H. See Hitch, E. F.
- Smith, F. L., modified combustion method for the determination of bromine in organic compounds, A., 551.
- Smith, F. L., and West, A. P., Moulén's catalytic method for the determination of nitrogen in organic compounds, A., 166.
- reduction of linolenic and linoleic bromides and rebromination of the free acids, A., 540.
- Smith, F. R. See Sawyer, R. A.
- Smith, G. B. L. See Audrieth, L. F.
- Smith, G. F., weight burette, A., 128.
- anhydrous barium perchlorate and mixed alkaline-earth perchlorates as dehydrating reagents, A., 438.
- Smith, G. F. See also Lowry, T. M.
- Smith, G. O., and Western Electric Co., Inc., alloy, (P.), B., 726.
- Smith, H. A., and Hamersley Manufacturing Co., manufacture of paper, (P.), B., 873.
- Smith, H. B., dyeing textile materials, (P.), B., 438.
- Smith, H. C. See Briscoe, H. V. A., Peel, J. B., and Robinson, P. L.
- Smith, H. E. See Fahrenwald, F. A., and Frazer, J. C. W.
- Smith, H. F., and Gas Research Co., apparatus for effecting heat transfer, (P.), B., 240.
- Smith, H. Grayson, and Westman, (Miss) M. E., some infra-red spectra, A., 389.
- Smith, H. Grayson. See also McLennan, J. C.
- Smith, Harold G. See Synthetic Ammonia & Nitrates, Ltd.
- Smith, H. L., formation of films of lead sulphide on glass surfaces, A., 224.
- production of half-silvered mirrors, A., 641.
- paints for compass bowls and discs, B., 821.
- Smith, H. L. See also Duffendack, O. S.
- Smith, I. A., ethyl $\alpha\beta$ -dichloro- β -bromovinyl ether, A., 644.
- Smith, I. B., recording small pressure differences, A., 102.
- Smith, J. B. See Gilbert, B. E.
- Smith, J. C. See Clarke, J., and Irvine, F. M.
- Smith, J. D. M., constitutions of the hydroborons [boron hydrides], A., 813.
- rare earths, A., 1010.
- electronic structure of atoms. I. The periodic classification, A., 1010.
- Smith, J. D. M., and George, Ltd., W. & J., crucible, (P.), B., 65*.
- Smith, J. H., and Warnock, F. V., testing machine for repeated impact: effects of repeated impact on Lowmoor iron, B., 782.
- Smith, J. H. C., and Young, W. G., Rast's micro-method for mol. wt. determinations, A., 1128.
- Smith, J. K., and Wills, C. H., rail steel, (P.), B., 847.
- Smith, J. K. See also Wills, C. H.
- Smith, J. W., mixing process and apparatus, (P.), B., 96.
- Smith, John William, vapour pressure of intensively dried nitrogen tetroxide, A., 506.
- Smith, L., applications of vat colours in printing, B., 362.
- Smith, L. See also British Dyestuffs Corporation, Ltd.
- Smith, L. B., and Taylor, R. S., correction to the equation of state for nitrogen, A., 104.
- Smith, L. C., & Son Manufacturing Co. See Vogt, C. C.
- Smith, L. H. See Smith, R. S.
- Smith, L. T., and Lyons, R. E., side-chain oxidations by means of nitro-compounds, A., 146.
- Smith, L. T. See also Hercules Powder Co., and Lyons, R. E.
- Smith, M., and Phipps, P., treatment of wood and like porous material, (P.), B., 328.
- Smith, M. L. See Spencer, J. F.
- Smith, M. P. See Scheutte, H. A.
- Smith, N. H., at. wt. of scandium, A., 806.
- Smith, O., and Hayes, J. W., pulverising mill, (P.), B., 464.
- Smith, O. H. See General Rubber Co., and Jury, A. E.
- Smith, P. See Elsdon, G. D.
- Smith, P. A. See Synthetic Ammonia & Nitrates, Ltd.
- Smith, R. B., and Siever, H. L., conditioning [oiling of] textile fibres, (P.), B., 904.
- Smith, R. C., laboratory emulsifier, A., 439.
- estimation of the efficiency and dispersive power of emulsifying agents, B., 799.
- Smith, R. C., and Dow, (Miss) I. C., drop number and emulsifiability, A., 935.
- Smith, R. S., Ellis, O. J., De Turk, E. E., Bauer, F. C., and Smith, L. H., saline county soils; Will county soils, B., 887.
- Smith, R. S., Norton, E. A., De Turk, E. E., Bauer, F. C., and Smith, L. H., saline county soils; Marion county soils, B., 887.
- Smith, S., soldering aluminium, (P.), B., 527.
- Smith, S. See also Wellman Seaver Rolling Mill Co., Ltd.
- Smith, Sinclair. See Anderson, J. A.
- Smith, Stanley, spectrum of doubly-ionised scandium, A., 399.
- spectral lines of trebly-ionised germanium, A., 1118.
- Smith, Sydney, 1-methylephedrine, an alkaloid from *Ephedra* species, A., 1094.
- Smith, S. C., extraction of lead from materials containing it or its compounds, (P.), B., 256.
- conversion of lead sulphate into lead carbonate, (P.), B., 555.
- conversion of lead chloride into lead carbonate, (P.), B., 842*.
- Smith, S. C., and Chemical & Metallurgical Corporation, Ltd., treatment of lead chloride or basic chloride and application thereof to the winning of lead from ores, residues, etc., (P.), B., 907.
- Smith, T., and Parke, Davis & Co., compound of silver iodide and protein substances, (P.), B., 173*.
- Smith, V. See Davis, J. G.
- Smith, W., treatment of metal surfaces [against corrosion], (P.), B., 606.
- [coating and] impregnating metals and other materials with aluminium or aluminium alloys, (P.), B., 943.
- Smith, William, Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing, (P.), B., 550.
- [manufacture of] anthraquinone derivatives [for use as dyes and intermediates], (P.), B., 902.
- Smith, William. See also Drescher, H. A. E.
- Smith, W. H., and Boone, C. E., alternating behaviour of fatty acids added to rubber compounds, B., 340.
- Smith, W. H., and Ford Motor Co., [iron] mould for casting metals, (P.), B., 390.
- Smith, W. H. See also Tener, R. F.
- Smith, W. S., and Garnett, H. J., alloys suitable for loading telephone and telegraph conductors, (P.), B., 80.

- Smith, W. S., and Garnett, H. J., magnetic alloys and their application in the manufacture of telegraphic and telephonic cables, (P.), B., 303.
- Smith, W. S., Garnett, H. J., and Holden, J. A., apparatus for heat-treating metals and alloys, (P.), B., 224.
- alloys and their application to the manufacture of electrical conductors, (P.), B., 912.
- Smith, W. S., Poppelord, N., and Garnett, H. J., magnetic alloy, (P.), B., 338*.
- Smith & Blyth, Ltd., S. See Drysdale, H.
- Smithells, C. J., Pitkin, W. R., and Avery, J. W., grain growth in compressed metal powder, B., 969.
- Smithells, C. J., and Rooksby, H. P., unusual micro-structure in iron and tungsten, A., 816.
- reaction of incandescent tungsten with nitrogen and with water vapour, A., 951.
- Smithells, C. J. See also Avery, J. W., and General Electric Co., Ltd.
- Smits, A., influence of intensive drying on the physical and chemical properties of matter, A., 728.
- solution of the ammonium chloride problem, A., 819.
- transmutation of elements, A., 1004.
- allotropy and internal equilibrium, A., 1027.
- Smits, A., and Karssen, A., artificial disintegration of the lead atom, A., 87.
- Smits, B. L. See Hughes, J. S.
- Smolczyk, E., imparting to drying means a large superficial area, (P.), B., 768.
- Smoleński, K., and Vlostovska, V., *d*-galacturonic acid from pectins, A., 229.
- Smolik, L., value of iron in zeolitic silicates in regard to soil reaction, B., 308.
- Smorodincev, J. A., nomenclature of ferments, A., 696.
- Smorodincev, J. A., and Adova, A. N., optimal p_H for the determination of trypsin by Gross' method, A., 76.
- determination of quinine [in urine] by Hartmann and Zila's method, A., 1105.
- effect of different preparations of the quinine group on the enzymic functions of the organism. VII. Importance of the actual reaction of the medium in the investigation of enzymic processes, A., 591.
- Smorodincev, J. A., and Danilov, V. A., influence of the quinine group on enzymic functions of the organism. VI. Dependence on the p_H of the action of quinine and carbamide on pancreatic lipase, A., 377.
- Smorodincev, J. A., and Iljin, E. A., influence of arsenic and antimony compounds on enzymic functions of the organism. IV. Cause of inhibitory influence of tartar emetic on salivary amylase, A., 792.
- Smull, J. G. See Long, J. S.
- Smyth, C. I. See Morrell, R. S.
- Smyth, C. P., and Morgan, S. O., electric moments of substituted benzene molecules and the structure of the benzene ring, A., 611.
- Smyth, H. D., collisions of the second kind in activated ozone, A., 1001.
- Smyth, H. D., Harnwell, G. P., Hogness, T. R., and Lunn, E. G., collisions of the second kind between ions and atoms or molecules, A., 85.
- Smythe, W. R., velocity filter for electrons and ions, A., 85.
- Snapper, I., and Grünbaum, A., decomposition of β -hydroxybutyric acid in the liver, A., 374.
- decomposition of acetoacetic acid during liver perfusion, A., 374.
- degradation of acetoacetic acid in the kidney, A., 693.
- Snell, F. D., and Bruce, D. S., chemical treatment of trade waste. II. Wastes from silk dyeing, B., 270.
- Snelling, W. O., extraction of gold from dilute solutions, (P.), B., 256.
- manufacture of hollow [artificial silk] fibres, (P.), B., 675.
- concentration of tin minerals, (P.), B., 847.
- Snelling, W. O., and Gasoline Products Co., Inc., treatment of oils, (P.), B., 578.
- Snelling, W. O., and Trojan Powder Co., [sensitised] ammonium nitrate explosive, (P.), B., 318.
- coal-mining explosive, (P.), B., 622.
- Snethlage, M. W. F., determination of lactose in bread, B., 122.
- Snider, G. G. See Hoagland, R.
- Snoddy, A. O. See Bosart, L. W.
- Snodgrass, W. R. See Browning, C. H.
- Snook, S. W. G. See Commin, F. J.
- Snow, R. D. See Pearce, J. N.
- Snyder, F. F. See Hoskins, F. M.
- Snyder, V. D., light source for continuous spectrum, A., 1163.
- Soames, K. M. See Golding, J.
- Sobieranski, W. See Chrzyszczewska, A.
- Sobolev, F. S., relation of nitrification processes to the solubility of the phosphoric acid of podsol soil, B., 21.
- Sobotka, H. See Levene, P. A.
- Società Anonima Prodotti Industriali. See Kautz, H.
- Società Italiana per la Metallizzazione, apparatus for producing oxyacetylene mixtures for use in spraying metals and other fusible material, (P.), B., 848.
- Società Italiana Pirelli, process and apparatus for regenerating vulcanised rubber, (P.), B., 757.
- Società Metalurgica Chilena "Cuprum," decomposing oxidisable ores by roasting, (P.), B., 225.
- Société Alsacienne de Produits Chimiques. See Blum, H.
- Société Anonyme les Agglomérés du Brabant, and Reifferscheidt, A., manufacture of coke, (P.), B., 6.
- Société Anonyme des anciens Établissements Loy et Aubé, retort setting for the carbonisation of wood, (P.), B., 468.
- Société Anonyme des anciens Établissements A. Savy Jeanjeon & Cie. See Baker Perkins, Ltd.
- Société Anonyme Caplain Saint-André, [precious metal] alloys, (P.), B., 194.
- Société Anonyme le Carbone, [electrodes for] batteries, electric accumulators, and electrolysis apparatus, (P.), B., 17.
- [depolariser for] dry batteries, (P.), B., 48.
- Société Anonyme le Carbone. See also Oppenheim, R.
- Société Anonyme des Chaux et Ciments de Lafarge et du Teil, manufacture of cement, (P.), B., 702.
- Société Anonyme des Chaux et Ciments de Lafarge et du Teil. See also Dumas, G., and Maguet, M.
- Société Anonyme Cilor, preparation of a rapidly-setting cement, (P.), B., 816.
- Société Anonyme Cimenti, insulating and building materials, (P.), B., 333.
- Société Anonyme Compagnie d'Exploitation des Procédés de Photographie en Couleurs L. Dufay. See Dufay, L.
- Société Anonyme des Distilleries des Deux-Sèvres, simultaneous dehydration and purification of alcohol, (P.), B., 235, 889.
- dehydration of alcohol, (P.), B., 428.
- rectification of ethyl alcohol, (P.), B., 857.
- Société Anonyme des Établissements A. Lendormy, removing grease from metal parts, (P.), B., 819.
- Société Anonyme des Établissements Rocca, Tassy, & de Roux, removal of free fatty acids from substances containing fats, (P.), B., 258.
- Société Anonyme pour l'Exploitation des Procédés M. Leblanc-Vickers, refrigerating machines for obtaining great differences in temperature, (P.), B., 431.
- Société Anonyme d'Explosifs et de Produits Chimiques, and Blanchet, L., treatment of gases produced in cracking hydrocarbons, (P.), B., 836.
- Société Anonyme des Fours à Coke Semet-Solva & Piette, producing ammonium sulphate [from coal gas], (P.), B., 107.
- Société Anonyme J. R. Geigy. See Hoz, H.
- Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny, & Cirey, apparatus for the equalisation of the density of mixtures of liquid and granular material [sand], (P.), B., 13.
- stretching glass, (P.), B., 366.
- manufacture of glass, (P.), B., 523.
- preventing coloration of lime-soda glass, (P.), B., 602.
- [hydraulically] grading solid substances contained in liquids, (P.), B., 689.
- protecting the silvering of glass, (P.), B., 702.
- Société Anonyme des Manufactures des Glaces et Produits Chimiques de Saint-Gobain, Chauny, & Cirey. See also Long, B.
- Société Anonyme des Matières Colorantes et Produits Chimiques de St.-Denis, Lantz, R., and Wahl, A., manufacture of derivatives of naphthaquinones, (P.), B., 39.
- Société Anonyme Métallurgique d'Aubrives et Villerupt, metallurgical apparatus [moulds, etc.], (P.), B., 81*.
- Société Anonyme de Perfectionnements Electrolytiques, apparatus for preventing damage by gases evolved in mordanting, electrolysis, or in the production of chemical products, (P.), B., 832.

- Société Anonyme des Pétroles, Houilles, & Dérivés. See Bascou, E. B. G.
- Société Anonyme le Salvoxy, apparatus for the production of oxygen, (P.), B., 140.
- Société Belge de l'Azote (Société Anonyme), [reinforced] lead columns or pipes, etc., [for acids], (P.), B., 785.
- Société Bouillon Frères, fire-extinguishing liquids, (P.), B., 2.
- Société Chimique de la Grande Paroisse. See L'Air Liquide.
- Société Chimique de la Grande Paroisse, Azote & Produits Chimiques, synthesis of ammonia, (P.), B., 364.
- [apparatus for] ammonia synthesis, (P.), B., 481.
- Société Chimique des Usines du Rhône, manufacture of phosphoric esters of carbohydrates and polyvalent alcohols, (P.), B., 125*.
- preparation of methyl alcohol, (P.), B., 156.
- production of cellulose acetate, (P.), B., 811.
- treatment of acetic acid [mother] liquor [from cellulose acetate manufacture], (P.), B., 963.
- Société Chimique des Usines du Rhône. See also Altwegg, J., Bellone, A. F. S., and Bouvier, M. E.
- Société des Ciments Française et Bureau d'Organisation Économique, production of cement and other binding agents, (P.), B., 966.
- Société Civile des Proc. Masse, process for treating green or dry stalks of ramie and other vegetable fibres, (P.), B., 839.
- Société Co-operative Emo, enamelling articles made of fibrous cement, (P.), B., 780.
- Société des Établissements Barbet, apparatus for continuous preliminary treatment of crude benzols, (P.), B., 182.
- manufacture of concentrated grape juice, (P.), B., 856.
- Société d'Études Chimiques pour l'Industrie. See Breslauer, J.
- Société d'Études Minières & Industrielles, manufacture of ammonia, (P.), B., 218.
- Société d'Exploitation de Brevets & d'Applications Industrielles, apparatus for testing doughs, (P.), B., 265.
- Société pour l'Exploitation des Procédés E. Urban, manufacture of phosphorus or phosphoric acid and concurrently of activated charcoal, (P.), B., 555.
- Société pour la Fabrication de la Soie "Rhodiaseta," apparatus for the manufacture of artificial silk, (P.), B., 248.
- manufacture of artificial threads or filaments, (P.), B., 406.
- methods and apparatus for the manufacture of artificial silk, (P.), B., 472.
- ring spinning device for spinning continuously-fed textile fibres, (P.), B., 839.
- Société pour la Fabrication de la Soie "Rhodiaseta." See Chavassieu, H. L. J.
- Société du Film en Couleurs Keller-Dorian, photographic films having lenticular elements, (P.), B., 765.
- reproduction of photographic images on films having lenticular elements, (P.), B., 766.
- Société Française des Films Hérault, Rodde, A., and Bombar, A., colour cinematography, (P.), B., 622.
- Société Française des Produits Alimentaires Azotés. See Kahn, M.
- Société Générale pour la Fabrication de la Dynamite, safety explosives, (P.), B., 509.
- Société Industrielle de la Cellulose, saccharification of wood, (P.), B., 935.
- Société Industrielle des Matières Plastiques, manufacture of plastic masses consisting of hardened casein, (P.), B., 825.
- Société Industrielle des Matières Plastiques. See also Barthélemy, H.
- Société Internationale des Combustibles Liquides, decomposition of coal and hydrocarbons by heating with hydrogen under pressure, (P.), B., 435.
- device for compressing viscous materials into high-pressure vessels, (P.), B., 464.
- Société Internationale des Procédés Prudhomme (S.I.P.P.), desulphurising natural or artificial gas mixtures, (P.), B., 245.
- Société Internationale des Procédés Prudhomme. See also Prudhomme, E. A.
- Société Luxembourgeoise des Hydrocarbures, and Brimeyer, F., cracking oils and tars, (P.), B., 357.
- Société Lyonnaise des Rechauds Catalytiques, catalytic heating apparatus, (P.), B., 929.
- Société Métallurgique de l'Ariège, treatment of metal [surfaces prior to electroplating], (P.), B., 606.
- Société Nationale de Recherches sur le Traitement des Combustibles, purification of [desulphurising] industrial gases, and production of carbonyl sulphide, (P.), B., 180.
- Société Nouvelle de Métallisation, metallising glass surfaces, (P.), B., 411.
- Société la Radiotechnique, low-expansion glass, (P.), B., 189.
- Société Recherches et d'Exploitations Pétrolifères, manufacture of agglomerated adsorbent carbon, (P.), B., 133, 356.
- saturation and recovery of gases and vapours by solid absorbents, (P.), B., 210.
- Société Rol Lister & Cie, bituminous emulsion, (P.), B., 182.
- Société Suisse des Explosifs. See De Wilde, P. R.
- Society of Chemical Industry in Basle, manufacture of chromium compounds of azo-dyestuffs, (P.), B., 40.
- manufacture of a new thioindoxyl derivative, (P.), B., 69*.
- dyeing acetylcellulose [cellulose acetate], (P.), B., 186.
- preparation of condensation products from carbamide, or its derivatives, and formaldehyde; reconversion of insoluble carbamide-formaldehyde condensation products into soluble form, (P.), B., 228.
- manufacture of quinolinic [pyridine-2 : 3-dicarboxylic] anhydride, (P.), B., 348.
- manufacture of vat dyes and intermediates, (P.), B., 360.
- manufacture of [indigoid] intermediates and dyes of the anthraquinone and anthracene series, (P.), B., 360.
- preparation of [azo]-dyes containing chromium, (P.), B., 404.
- manufacture of aldehyde condensation products, (P.), B., 419.
- manufacture of condensation products of carbamide or a derivative thereof and formaldehyde, (P.), B., 496.
- manufacture and application of new dyes, (P.), B., 518.
- manufacture of azo-dyestuffs and chromium derivatives thereof, (P.), B., 551*.
- manufacture of condensation products from carbamide or its derivatives and formaldehyde, (P.), B., 563, 756.
- manufacture of new compounds of bile acids, (P.), B., 572.
- manufacture of [quinone vat] dyes, (P.), B., 648.
- manufacture of dye preparations [for acetate silk], (P.), B., 650.
- manufacture of vat dyestuff preparations, (P.), B., 650.
- manufacture of azo-dyes containing metal, (P.), B., 674.
- converting into soluble form insoluble condensation products of carbamide or a derivative thereof and formaldehyde, (P.), B., 684.
- manufacture of *ar*-tetrahydronaphthylamines or derivatives thereof, (P.), B., 808.
- manufacture of [sulphide vat] dyes, (P.), B., 860.
- manufacture of an [azo]-dye [for acetate silk], (P.), B., 869.
- Society of Chemical Industry in Basle, Fritzsche, H., Gubler, H., Kaiser, O., and Krummenacher, E., intermediate products for dyes, (P.), B., 697.
- Society of Chemical Industry in Basle, Gams, A., and Girard, M., manufacture of calcium salts of inositolphosphoric acid, (P.), B., 860*, 893*.
- Society of Chemical Industry in Basle, Gubler, H., Stahel, H., and Straub, F., production of azo-dyes containing chromium, (P.), B., 469.
- Society of Chemical Industry in Basle, and Minnich, W., preparation of solutions of compounds [medicaments] insoluble or sparingly soluble in water, (P.), B., 574*.
- Society of Chemical Industry in Basle, and Posternak, S., manufacture of the pure phosphorus-containing nuclear substance of milk casein, (P.), B., 734*.
- Society of Chemical Industry in Basle, Schneider, H., and Straub, F., manufacture of [azo]-dyestuffs, (P.), B., 325, 360*.
- manufacture of chromable azo-dyestuffs, (P.), B., 551*.
- Society of Chemical Industry in Basle, and Straub, F., manufacture of dyestuffs containing chromium, (P.), B., 405*.
- Society of Chemical Industry in Basle, and Tobler, R., manufacture of 2 : 3-aminonaphthoic acid, (P.), B., 470*.
- Society of Chemical Industry in Basle. See also De Montmollin, G., and Hartmann, M.
- Sodeau, W. H., and Gibson, C. S., use of plaster of Paris as an impression material, B., 878.
- Soderberg, A. W., regenerative furnace, (P.), B., 464.
- Söderlund, O., Boberg, T., Testrup, N., and Techno-Chemical Laboratories, Ltd., removal of water from peat and the like, (P.), B., 358*.
- Söll, J. See I. G. Farbenind. A.-G.
- Soellner Nachf. Reisszeugfabr. A.-G., J. B. See Pieper, W.
- Sörbom, K. G. V., machine for grinding paper pulp, (P.), B., 520.
- Sörensen, S. P. L., composition and characterisation of genuine proteins, A., 166.

- Sörensen, *S. P. L.*, Linderström-Lang, *K.*, and Lund, *E.*, influence of salts on the ionisation of egg-albumin, A., 512.
- Sörensen, *S. P. L.*, and Lorber, *L.*, condensation between sugars and proteins, A., 547.
- Sogani, *C. M.*, X-ray diffraction in liquids, A., 924, 1129.
- Sogani, *C. M.* See also Raman, *C. V.*
- Soieries de Strasbourg Société Anonyme, and Bronnert, *E.*, spinning box for use in the artificial silk industry, (P.), B., 104*.
- Sokolov, *V. I.* See Peskov, *N. P.*
- Sokolov, *W. A.*, series number and decay constants, A., 1121.
- Sokovol'ski, *A. N.*, properties of soil colloids, B., 262.
- Soleillet, *P.*, resonance radiation of zinc, A., 177.
- influence of the magnetic field on the polarisation of the resonance radiation of cadmium, A., 803.
- Solidifier Corporation. See Lukens, *H. S.*
- Sollmann, *T.* See Oettingen, *W. F. von.*
- Solodki, *F.* See Krestinski, *V. N.*
- Solt & Kronstein. See Rubinstein, *H.*
- Soltan, *A.* See Thibaud, *J.*
- Soltan, *F.* See Mallison, *H.*
- Somerford, *W. W.*, refining bee honey, (P.), B., 763.
- Somerville, *A. A.*, oil composition, (P.), B., 291.
- Somerville, *A. A.*, and Vanderbilt Co., Inc., *R. T.*, petroleum oil composition, (P.), B., 771.
- Somerville, *I. C.* See Ross, *J. D. M.*
- Someya, *K.*, electrometric titration of dichromate using potassium ferrocyanide, A., 224.
- use of liquid amalgams in volumetric analysis. VIII. Determination of copper and tin by reduction with bismuth amalgam, A., 332.
- use of liquid amalgams in volumetric analysis. VII. Oxidimetric determination of chromium, A., 333, 746*.
- colours of chromous, vanadous, and tervalent uranium ions, A., 432, 713*.
- use of liquid amalgams in volumetric analysis. IX. Determination of vanadium and tungsten, A., 746.
- use of liquid amalgams in volumetric analysis. VIII. Oxidimetric determination of tin and copper by bismuth amalgam, A., 848.
- use of liquid amalgams in volumetric analysis. IX. New determinations of vanadium and tungsten, A., 848.
- Someya, *K.* See also Murakami, *T.*
- Somiya, *T.*, determination of water content in concentrated sulphuric acid by thermometric titration, B., 329.
- analysis of concentrated and fuming sulphuric acids by thermometric titration, B., 439.
- analysis of commercial acetic anhydride containing little or no sulphuric acid by thermometric titration, B., 439.
- Sommelet, *M.*, *N*-alkylimines of benzophenone, A., 667.
- Sommer, *A. L.*, essential nature of aluminium and silicon for plant growth, A., 1225.
- Sommer, *F.* See Weber, *A.*
- Sommer, *H.*, action of atmospheric influences on fibrous material, B., 903.
- Sommer, *L. A.*, Zeeman effect and the structure of the arc spectrum of copper, A., 83.
- bands in the extreme ultra-violet spectrum of a helium discharge, A., 607.
- Zeeman effect and the structure of the arc spectrum of rhodium, A., 1119.
- Sommer, *W.* See Glimm, *E.*
- Sommerfeld, *A.*, electronic structure of the atom and the quantum theory, A., 88.
- Sommerfeld, *A.* See also Laporte, *O.*
- Sommermeier, *J.*, cooling of hot substances with exclusion of air, (P.), B., 2.
- Somogyi, *M.*, determination of sugar, A., 69.
- reducing non-sugars and true sugar in human blood, A., 1214.
- Sonnehalb, *F.* See Hieber, *W.*
- Sonoda, *S.*, properties of electrolytic copper sheets; sheets deposited on rotating cathodes, B., 368.
- Sonsthagen, *A.*, mixing machines for chocolate or other material, (P.), B., 890.
- Soos, *A.*, law of "particle projection" and its experimental verification, A., 625.
- Soper, *F. G.*, rate of transformation of acetylchloroaminobenzene into *o*- and *p*-chloroanilides as a measure of the catalytic power of hydrochloric acid, A., 837.
- Sordelli, *A.*, preparation of insulin, A., 994.
- Sorrentino, *E.* See Cardoso, *E.*
- Sortwell, *H. H.*, and Star Porcelain Co., ceramic insulating material, (P.), B., 557.
- Sorum, *C. H.*, lability in ferric oxide hydrosols, A., 1024.
- Soskin, *S.*, muscle-glycogen as a source of blood-sugar, A., 986.
- Sosnick, *B.*, computation of partial molal quantities of binary solutions, A., 1028.
- Sosnick, *B.* See also Gibson, *G. E.*
- Sossiedov, *N. I.* See Blagoveschenski, *A. V.*
- Sosson, *C. E.* See Shoesmith, *J. B.*
- Souček, *J.*, and Kraus, *F.*, effect of manuring with Chili saltpetre on the sugar beet, B., 729.
- Souder, *M. E.* See Kendrick, *W. C.*
- Soule, *W. H.* See Ingolfsrud, *L. J.*
- Soundy, *L. H.* See Edison Swan Electric Co., Ltd.
- Sourdillon, *A.* See Portevin, *A.*
- Soutar, *C. W.* See British Alizarine Co., Ltd.
- South Metropolitan Gas Co., and Evans, *E. V.*, manufacture of coal gas, (P.), B., 244.
- South Metropolitan Gas Co., and Lamprey, *R. H. B.*, manufacture of refractories [for gas retorts, etc.], (P.), B., 938.
- South-Western Engineering Corporation. See Hall, *E. A.*, and Millard, *R. B.*
- Southall, *J.*, separation of solids from liquids [in sand or gravel washers], (P.), B., 910.
- Souther, *B. L.* See Beal, *G. D.*
- Southgate, *H. W.*, efficient gas scrubber, A., 537.
- Southworth, *J.*, plate sensitivity and fogging agents: methylene-blue, B., 764.
- modified sulphide-nuclei theory of [photographic] sensitivity, B., 957.
- Sowder, *A. M.*, use of shale oil as a wood preservative, B., 909.
- Sowerby, *A. L. McR.*, system lead chloride-lead iodide-water, A., 731.
- Soyka, *C.* See Dyson, *G. M.*, and Hunter, *R. F.*
- Spackman, *H. S.*, manufacture of hydraulic cement and products produced thereby, (P.), B., 367, 843*.
- manufacture of cementitious material, (P.), B., 843*.
- Spaeu, *G.*, and Dick, *J.*, determination of cobalt, A., 640.
- rapid determination of copper, A., 746.
- rapid determination of nickel, A., 1047.
- Späte, *F.* See Patent-Treuhand-Ges. für elektrische Glühlampen m.b.H.
- Späth, *E.*, reactions of magnesium alkyl halides, A., 451.
- Späth, *E.*, and Burger, *A.*, opium alkaloids. VII. Synthesis of laudanino and laudanidine, A., 473.
- opium alkaloids. VIII. Synthesis of papaverine, A., 474.
- Späth, *E.*, and Epstein, *H.*, opium alkaloids. VI. Constitution of codamine and ψ -laudanine, A., 163.
- Späth, *E.*, and Holter, *H.*, corydalis alkaloids. VII. Syntheses of corybulbine and isocorybulbine, A., 163.
- alkaloids of *Corydalis cava*. IX. Constitution of corycavine and corycavamine, A., 1097.
- Späth, *E.*, and Leithe, *W.*, ipecacuanha alkaloids. I. Constitution of emetine and cephaline, A., 471.
- Späth, *E.*, and Mosettig, *E.*, alkaloids of the *Calumba* root. VI. *Corydalis* alkaloids. VIII. Synthesis of tetrahydrojatrorrhizine, tetrahydrocolumbamine, and corypalmine, A., 368.
- Späth, *E.*, and Polgar, *N.*, opium alkaloids. V. ψ -Papaverine and methylenepapaverine, A., 163.
- Späth, *E.*, and Quietensky, *H.*, fission of the methylenedioxy-group, A., 1066.
- Späth, *K.* See Starlinger, *W.*
- Spaeth, *T. A.*, and Matthews Selected Dairies Co., manufacture of butter-fat products, (P.), B., 92.
- Spalding, *J. E.*, and Archer, *R. L.*, filter, (P.), B., 511.
- Spanner, *J.* See Fraenkel, *W.*
- Sparberg, *M. S.* See Marvel, *C. S.*
- Speakman, *J. B.*, intracellular structure of the wool fibre, B., 932.
- Speakman, *J. B.*, and Goodings, *A. C.*, chlorination of wool, B., 293.
- Spear, *E. B.* See Thermatomic Carbon Co.
- Specht, *W.* See Gebauer-Fülneegg, *E.*
- Speck, *T. R.*, annealing, carburising, bright-annealing, and other heat-treatment furnaces, B., 561.
- Specklin, *P.*, highly sensitive photographic plates and films, (P.), B., 957.
- Spedicato, *C.*, production of potassium bitartrate from grape residues, (P.), B., 538.

- Speed, J. B., and Western Electric Co., method for and means of separating electrolytes, (P.), B., 47.
- Speed, W. S., and Louisville Cement Co., utilising heat from cement clinker, (P.), B., 77.
- Speicher, J. K., and Hercules Powder Co., oxidised pine oil for pigments, (P.), B., 452.
- Speichert, M., and Vogel, F., treatment of lead-tin alloys derived from waste material from lead-smelting works, (P.), B., 881.
- Spek, J. van der. See Hissink, D. J.
- Speller, F. N., manufacture of steel, (P.), B., 369.
- Speller, F. N., and Chappell, E. L., practical application of inhibitors in [metal] pickling operations, B., 704.
- Spence, H. See Spence & Sons, Ltd., P.
- Spence, J., Courtenay, C. E., and Courtenay, H. A., treatment of scrap containing gunmetal and white metal in order to separate the latter, (P.), B., 847.
- Spence, L. U. See Hurd, C. D.
- Spence & Sons, Ltd., P., Kirkham, A., and Spence, H., manufacture of titanium compounds [sulphate], (P.), B., 188.
- Spence & Sons, Ltd., P., Llewellyn, W. B., and Crundall, S. F. W., preparation of titanium compounds [for pigments], (P.), B., 85.
- Spencer, C. D. See British Thomson-Houston Co., Ltd.
- Spencer, G. C. See Collins, W. P., and Hann, R. M.
- Spencer, H. McC., and Seydel Chemical Co., alumina coagulant, (P.), B., 966.
- Spencer, J. F., and Drummond, (Miss) R., influence of gum acacia on the specific conductance of some binary electrolytes and the effect of binary electrolytes on the viscosity of gum acacia solutions, A., 934.
- Spencer, J. F., and John, (Miss) M. E., magnetic susceptibility of some binary alloys, A., 1016.
- Spencer, J. F., and Smith, M. L., determination of soluble iodides, A., 638.
- Spencer, J. F. See also Hartshorne, N. H.
- Spencer, L. J., aramayoite, a new mineral, from Bolivia, A., 225.
- schultenite, a new mineral, from South-west Africa, A., 225.
- Spencer Kellogg & Sons, Inc. See Schwarzman, A.
- Spengler, O., and Brendel, C., volume of the mark in the digestion method, B., 234.
- content of sulphur dioxide in German consumption sugars, B., 686.
- valuation of raw [beet] sugars in respect of their affinity, B., 730.
- Spengler, O., Brendel, C., and Schwirblanski, J., 100° point of the saccharimeter, B., 730.
- Spengler, O., and Landt, E., adsorption of activated carbons, B., 664.
- Spengler, O., and Tödt, F., determination of hydrogen-ion concentration of sugar factory products, B., 685.
- discoloration of sugars of different qualities at high temperatures in absence and in presence of other substances, B., 887.
- Spengler, O., and Traegel, A., relative sweetening power of sucrose and lævulose, B., 311.
- Spengler, O., and Weidenhagen, R., origin and migration of the sugars in the beetroot, B., 234.
- use of chlorine for [beet] juice purification, B., 537.
- Spengler, O. See also I. G. Farbenind. A.-G.
- Sperr, F. W., jun., dehydration of manufactured gas, B., 243.
- Sperr, F. W., jun., Jacobson, D. L., and Koppers Co., manufacture of sodium thiosulphate, (P.), B., 815*.
- Sperr, F. W., jun., and Koppers Co., coking process, (P.), B., 162.
- Sperry, W. M., lipin excretion. IV. Relation of bile to faecal lipins; cholesterol metabolism, A., 273.
- Speter, M., m. p. apparatus, A., 641.
- preparation of hypophosphoric acid, A., 1156.
- precipitation of zirconium with picric acid, B., 255.
- Speyer, E., and Wolf, H., mode of formation of iron nonacarbonyl from iron pentacarbonyl, A., 742.
- Spiegel, L., yohimba alkaloids, A., 163.
- Spiegel-Adolf, M., physico-chemical investigation of irradiated proteins. I. Changes of serum-albumin during ultra-violet irradiation and their relationship to heat-coagulation, A., 893.
- Spier, J. See De Montmollin, G.
- Spiers, C. W., and Morgan Crucible Co., Ltd., kiln and other heat-treatment furnace, (P.), B., 624*.
- Spiers, C. W. See also Morgan Crucible Co.
- Spiers, H. M., consistency of "bitumen mixtures," B., 38.
- variation of Hutchinson consistency of tars with temperature, B., 38, 645.
- Spies, F., granulating molten [blast-furnace] slag [for cement], (P.), B., 843.
- Spilker, A., composition and chemical constitution of lubricants (oils) and their synthesis, B., 576.
- Spindler, H., washing and cleaning fabrics, (P.), B., 214.
- Spindler, H., and Goudet, A., transforming methane into a carburetting agent similar to petroleum, (P.), B., 868.
- Spinka, E. J. See Whiteley, J. T.
- Spinnstoff-fabrik Zehlendorf G.m.b.H., manufacture of artificial silk, (P.), B., 165.
- Spiorescu, (Mlle.) E., [detection of] chlorine ions in complex mixtures of ions (CN', SCN', Fe(CN)₆'''', Fe(CN)₆'''', Br', I'), A., 637.
- Spitalsky, E., and Funck, A., complex homogeneous catalysis of hydrogen peroxide by sodium molybdate, A., 426.
- Spitalsky, E., and Kagan, M., heterogeneous catalysis and electrochemical polarisation, A., 117.
- Spitalsky, E., and Kobosev, N., kinetic laws of homogeneous catalysis; inner mechanism of a homogeneous catalytic reaction, A., 835.
- Spitzer, A. See Weiss, R., and Zellner, J.
- Spitzer, G., and Eppe, W. F., saponification of butter fat for determining the Reichert-Meißl value, B., 882.
- Spitzer, G., Parfitt, E. H., and Eppe, W. F., proteolytic action of certain specific organisms on milk proteins in milk and synthetic butter, A., 593.
- Spitzer, H. A. See Zellner, J.
- Spitzer, K. See Schmalfuss, H.
- Spitzin, V. T., reduction of alkali tungstates, A., 327.
- Spitzin, V. T., and Kashtanoff, L., action of gaseous hydrogen chloride on tungsten compounds, A., 33, 951*.
- Spoelstra, D. B. See Reclaire, A.
- Spohr, E. See Loewe, S.
- Sponer, E. C., magnetism and molecular structure, A., 295.
- Sponer, H., absorption bands of nitrogen, A., 395, 496.
- heat of dissociation of N₂ and N₂⁺, A., 1008.
- Sponsler, O. L., and Dore, W. H., structure of ramie cellulose as derived from X-ray data, B., 934.
- Spoon, W., changes in slab rubber on keeping, B., 393.
- influence of "uspulun" on the inner properties of rubber, B., 393.
- Spoon, W. See also De Vries, O.
- Spooner, T., magnetic analysis of high-speed steel, B., 631.
- Spotz, C. A., distilling crude oils from shale, (P.), B., 35.
- Sprengr Patentverwertung Jirotká m.b.H., O., and Jirotká, B., metal coatings on aluminium and aluminium alloys, (P.), B., 144*.
- producing metal [copper] coatings on articles of aluminium and its alloys, (P.), B., 785.
- Springer, H. B., and Davies, J. G., determination of phosphates in sugar-cane juice, B., 537.
- Springer, R. See Kremann, R.
- Springer, U., colorimetric determination of humus substances, B., 271.
- Springer, U., and Abele, G., differentiation of peat and lignite, B., 401.
- Springer, W. See Pollak, L.
- Sproesser, W. C., and Westinghouse Lamp Co., introduction of hygroscopic material into evacuated devices [electric lamps], (P.), B., 116.
- getter for controlling crystal growth; introduction of clean-up agents into evacuated vessels; application of getters to electric incandescence lamps and the like, (P.), B., 634.
- electric incandescence lamp [getter], (P.), B., 634.
- evacuation of [electric lamp] bulbs, etc., (P.), B., 634.
- Sprout, J., wet separating apparatus, (P.), B., 690.
- Spuhl, R., production of pure mercury vapour for inhalation purposes [from cinnabar, mercuric sulphide, etc.], (P.), B., 349.
- Spurrier, H., terra cotta, B., 332.
- [terra cotta] colour problem, B., 629.
- Spurrier, H. See also Berge, G.
- Squibb & Sons, E. R. See Nitardy, F. W., and Riggs, L. K.
- Squires, B. T., effect of light on uroporphyrin, A., 478.
- Srbek, J. See Jirsa, F.
- Srebrow, B. See Balarev, D.

- Greenivasaiah, B. N., relation between specific heat, thermal expansion, and velocity of sound in liquids, A., 818.
- Staatliche Porzellan-Manufaktur, [porcelain] suction filters, (P.), B., 832*.
- Staatliche Porzellan-Manufaktur, and König, A., porcelain crucibles, (P.), B., 189.
- Staatliche Vereinigte Anilinabriken. See Voroshtzov, N. N.
- Stacey, A. E., jun., and Carrier Engineering Corporation, uniformly drying or processing materials, (P.), B., 32.
- Stachejeva, E. See Gavrilov, N. I.
- Stachorski, K. M., molecular association in the liquid state, A., 404, 1139.
- internal pressures and latent heats of evaporation of liquids, A., 506.
- theory of the state of matter, A., 818.
- Stachorski, K. See also Timoféev, V.
- Stackelberg, M. von, relationship of classical stereochemistry to the new work of Weissenborg, A., 1011.
- Stackmann, E. K., heating of jacketed rotary retorts for the carbonisation of fuels at definite low temperatures, (P.), B., 323.
- Stadeler, A., determination of silica in ores, slags, fluxes, and refractory materials containing fluorine, B., 414.
- determination of silicon in steel and pig iron, B., 526.
- Stadler, P., colour and alcohol content of dutiable wines, B., 665.
- Stadlinger, H., valuation of gelatin on the basis of its swelling capacity, B., 611.
- Stadlinger, H., and Tschirch, E., linoleic acid content of bone grease. I, II, and III, B., 914.
- Stadnikov, G., Siberian boghead coals, B., 736.
- Stadnikov, G., and Proskurnina, N., differentiation of the conceptions coal, lignite, and peat, B., 864.
- Stäblein, F. See Krupp, F., A.-G.
- Stäger, A., atmospheric disperse systems and their physico-chemical and electrical properties, A., 823.
- Stäger, H., and Zschokke, H., potential measurements of non-rusting steels, B., 939.
- Stälhane, O., production of cyanic compounds, (P.), B., 166.
- manufacture of cyanides, (P.), B., 602*.
- Stafford, J. G. See Phillips, E. B.
- Stafford, O. F., wood as gas-making material, B., 97.
- Stabel, H. See Society of Chemical Industry in Basle.
- Stahl, W., effect of tin on the mechanical properties of copper, B., 526.
- Stahlschmidt, W., production of stains and gold tones on brass, (P.), B., 223.
- Stahlwerke A.-G., and Bernatzky, W., furnace for annealing sheet-metal plates, (P.), B., 225.
- Stahlwerke Röchling-Buderus A.-G., material for making tools of high mechanical strength, (P.), B., 970.
- Stahn, R. See Hess, K.
- Staib, K. See I. G. Farbenind. A.-G.
- Staley, H. F., theory of pickling of sheet iron and steel for enamelling purposes, B., 751.
- Staley, W. D. See Parr, S. W.
- Stallmann, O. See Gubelmann, I.
- Stalony-Dobrzański, J., coloration of alkaline-earth sulphides under the influence of pressure, A., 186.
- Stama, P. J. See Krantz, J. C., jun.
- Stamberger, P., rubber-filler systems; colloid problems of the rubber industry, B., 708.
- Stamm, A. J., emulsification and distribution of size of particles, A., 308.
- electrical resistance of wood as a measure of its moisture content, B., 820.
- Stammreich, H. See Miethe, A.
- Stampe, G. See Thiel, A.
- Standard Development Co., process and apparatus for cracking hydrocarbons, (P.), B., 741.
- purification of hydrocarbon oils containing sulphur, (P.), B., 931.
- Standard Development Co. See also Becker, A. E., Carringer, J. R., Clark, E. M., Cobb, E. B., Garner, J. B., Howard, F. A., Kraus, O. A., Lewis, W. K., Loomis, N. E., Messenger, O. G., Parsons, L. W., and Weller, D. R.
- Standard Oil Co. See Halloran, R. A., Holland, W. W., Lockhart, L. B., Paulus, M. G., Rogers, F. M., Schneider, B. B., Sullivan, F. W., jun., Wilkin, R. E., and Wilson, R. E.
- Standard Oil Co. of California. See Bartels, E. E., Christopher, H. S., and Mason, W. D.
- Standard Oil Co. of New York. See Rather, J. B.
- Standard Silk Dyeing Co. See Seyer, J.
- Standish, W. A., Cowgill, G. R., and Shohl, A. T., gastric digestion; relation of volume, hydrogen-ion concentration, and buffer capacity of the test meal to the gastric contents, A., 1105.
- Stanké, V., and Vondrák, J., determination of sugar in the beet, B., 395.
- error caused by the presence of invert sugar in the determination of sucrose in the beet by the aqueous digestion method, B., 538.
- Stanner, E. See Herz, W.
- Stansfield, A., equilibrium for the reaction $2\text{CO} = \text{CO}_2 + \text{C}$, B., 720.
- Stansfield, A., and Morrison, J. E., blast-furnace slags containing titanium, B., 489.
- Star Porcelain Co. See Sortwell, H. H.
- Starck, W. See Staudinger, H.
- Starczewska, (Mlle.) H. See Swientoslawski, W.
- Stark, H. M., apparatus and process for leaching, filtering, and absorbing gases, (P.), B., 434.
- Stark, J., "axiality" of light emission and the structure of chemical atoms, A., 710.
- Stark, N., and Blüh, O., adsorption and shape of the carbon dioxide molecule, A., 922.
- Stark, N. See also Blüh, O.
- Stark, R. E., and Stibium Products Co., manufacture of precipitated antimony [penta]sulphide, (P.), B., 787.
- Starkenstein, E., pharmacology of iron, A., 172.
- Starkey, R. L., and Henrici, A. T., occurrence of yeast in soil, B., 150.
- Starkey, R. L. See also Halvorson, H. O.
- Starkweather, H. W. See Baxter, G. P.
- Starling, W. W. See Dudley, H. W.
- Starlinger, W., Späth, K., and Winands, E., analysis, salting out, and specific refraction of human blood-plasma proteins and comparative viscosity of serum, A., 584.
- Staronka, W., kinetics of chemical reactions. I. Interpretation of conjugated autocatalysis in the isomerisation of alkyl phosphites, A., 633.
- Starr, I., jun., and Gamble, C. J., determination of minute amounts of ethyl iodide; determination of blood flow by ethyl iodide, A., 270.
- Stary, Z., solutions in high-tension electric fields, A., 522.
- Starynkevitch-Borneman, I. D. See Bonstedt, E. M.
- Stas, J., reducing action of Grignard reagents, A., 46.
- Stassano, H., sterilising or pasteurising putrescible liquids, (P.), B., 318.
- Stassinot, T., experiments with electric annealing furnaces, B., 14.
- Staub, H., experimental liver intoxication with a by-product of chloranil. I. Attempted isolation of the toxic substance, A., 73.
- Staub, P. See Johnson, H.
- Staud, C. J. See Gray, H. Le B.
- Staudinger, H., chemistry of complex organic compounds in the light of Kekulé's theory of structure, A., 136.
- Staudinger, H., Frey, K., and Starck, W., highly-polymerised compounds. IX. Polyvinyl acetate and polyvinyl alcohol, A., 1051.
- Staudinger, H., Johner, H., Signer, R., Mie, G., and Hengstenberg, J., polymerised formaldehyde as a model of cellulose, A., 647.
- Stauffer, R., preparation of a baked product containing active Kephir bacilli, (P.), B., 265.
- Stavely, F. W., and Shepard, N. A., methods of studying cord tyre fabric, B., 276.
- Stavorinus, D., determination of small quantities of carbon monoxide, B., 834.
- Stay, T. D., Tessier, C. O., and Aluminum Co. of America, reclaiming [easily oxidisable] metals, (P.), B., 528.
- Stearn, A. E., amphoteric behaviour of complex systems. I. Theoretical. II. Titration of sulphanilic acid-glycine mixtures, A., 21.
- amphoteric behaviour of complex systems. III. Conductivity of sulphanilic acid-lysine mixtures. IV. Isoelectric point and ionisation constants of sulphanilic acid, A., 516.
- Stebbins, A. H., concentrator table, (P.), B., 896.
- Stecher, T., experiments with the Neubauer seedling method, B., 760.
- Stedman, E., isomeric hydroxybenzylidimethylamines, A., 967.

- Stedman, *E.* See also Stedman, (*Mrs.*) *E.*
 Stedman, (*Mrs.*) *E.*, empirical formula of yohimbine, A., 579.
 Stedman, (*Mrs.*) *E.*, and Stedman, *E.*, hemocyanin. IV. Dependence of shape of oxygen dissociation curve on state of ionisation of the protein, A., 689.
 Steele, *C. C.* See Read, *J.*
 Steele, *L. L.*, effect of certain organic bases in plasticised nitro-cellulose films, B., 599.
 Steely, *D. G.*, process and apparatus for the continuous beating of viscid liquids, (P.), B., 768.
 Steen, removal of precipitates from settling vessels without running off the supernatant solution, B., 63.
 Steen, *T.*, apparatus for the chemical and mechanical treatment of mixed liquids and solids, (P.), B., 800.
 Steenbeck, *M.* See Kossel, *W.*
 Steenbock, *H.*, and Coward, *K. H.*, fat-soluble vitamins. XXVII. Determination of vitamin-A, A., 595.
 Steenbock, *H.* See also Hart, *E. B.*
 Steenhauer, *A. J.* See Itallie, *L. van.*
 Steenkiste, *A. van.*, determination of nitrogen in coal, B., 33.
 Steenstrup, *C.*, and General Electric Co., electric furnace, (P.), B., 881.
 Steenstrup, *C.* See also British Thomson-Houston Co., Ltd.
 Steerup, *G.* See Miner, *C. S.*
 Stefancsik, *S.*, decreased nitrogen secretion during pregnancy, A., 1107.
 Steffen, *C.*, production of tricalcium saccharate rich in sugar and poor in lime and of a very high degree of purity [from beet molasses], (P.), B., 234.
 Steffen, *C.*, preparation of [pure] tricalcium saccharate, (P.), B., 454.
 Steffen, *C. jun.*, production of tricalcium saccharate of low lime and high sugar content from cold molasses or impure sugar solutions, (P.), B., 264.
 Steffen, *L.*, extraction of sugar from molasses, (P.), B., 500.
 Steffen, *R. M.* See Darlington, *H. T.*
 Steger, *A.*, and Loon, *J. van.*, derivatives of petroselic and petroselidic acids, A., 1168.
 Steger, *A.*, and Scheffers, *H. W.*, separation of liquid and solid fatty acids by Twitell's method, B., 562.
 Stehle, *R. L.*, diuretic-antidiuretic action of pituitary, A., 380.
 Stehmann, *H.*, calcining cement, magnesite, lime, etc., (P.), B., 190.
 Steidle, *H.*, local anæsthetics and antipyretics of the thiophen series, A., 276.
 Steiger, *H.* See Lichtenhahn, *T.*
 Steiger, *R.* See Ruzicka, *L.*
 Steiger, *R. E.* See Levene, *P. A.*
 Steigmann, *A.*, visible and latent differentiated zones in macroscopic homogeneous suspensions, A., 201.
 cerebrospinal fluid, A., 411.
 electron configuration and light sensitivity, B., 174.
 photographic ripening nuclei, B., 574.
 mercury printing, B., 620.
 Stein, *B.* See Grasselli Dyestuff Corporation.
 Stein, *F.*, production of alkali sulphates and ammonium sulphate, or their double salts, (P.), B., 299.
 separation of native sodium salts, *e.g.*, thénardite and glauberite, from the accompanying rock salt gangue, (P.), B., 906.
 Stein, *H.* See Rothmann, *A.*
 Stein, *L. M.* See Muchiu, *G. E.*
 Stein, *M.* See Zellner, *J.*
 Stein, *W. D.*, manufacture of bread, cakes, and other yeast-leavened baked foods, (P.), B., 732.
 Stein, *W. D.* See also Block, *D. J.*
 Stein-Davies Co. See Fackler, *L.*
 Stein Fur Dyeing Co., Inc., processes of bleaching and dyeing furs, (P.), B., 249*.
 bleached and dyed furs, (P.), B., 421.
 Steinberger, *F. K.* See Stobbe, *H.*
 Steinbrecher, *F.*, determination of alumina in silicate analysis, B., 141.
 Steinbrecher, *H.*, influence of the bitumen content of lignite dust on its explosiveness and temperature of spontaneous ignition, B., 593.
 Steindorff, *A.* See I. G. Farbenind. A.-G.
 Steiner, *W.*, surface constitution and spectral sensitivity of silver bromide and chloride precipitates, A., 529.
 Steiner, *W.* See also Bay, *Z.*, Fajans, *K.*, and Kornfeld, *G.*
 Steinfatt, *F.* See Honcamp, *F.*
 Steingroever, *A.*, dispersion of cellulose according to von Weimarn's theories, A., 513.
 Steinhaus, *W.*, and Kussmann, *A.*, high-frequency [induction] furnaces for small charges, B., 848.
 Steinhoff, *E.*, importance of silica conversions in the burning process and in the behaviour of refractory materials in industry, B., 331.
 modern methods of testing refractories and their importance in gas-retort construction, B., 937.
 Steinitz, *E.* See Fringsheim, *H.*
 Steinkopf, *W.* [with Buchheim, *K.*, Beythien, *K.*, Dudek, *H.*, Eisold, *J.*, Gall, *J.*, Jaeger, *P.*, Reumuth, *H.*, Semenov, *A.*, and Wemme, *A.*], aromatic sulphonyl fluorides, A., 963.
 Steinmetz, *H.*, and Hettich, *A.*, crystallographic investigation of silver sub-fluoride, A., 1128.
 Steinschneider, *L.* See Neumann, *R.*
 Stelfox, *J. C.* See Humphreys & Glasgow, Ltd.
 Stella, *G.*, colloidal mixed solutions of calcium carbonate and calcium phosphate, A., 1024.
 Stella A.-G., and Dreifuss, *M.*, bearing metal of high lead content with a bronze basis, (P.), B., 490.
 Stelling, *H.*, fireproofing organic fibrous material, (P.), B., 965.
 Stelling, *O.*, chemical constitution and *K* absorption spectra. IV. Chloro-compounds, A., 391.
 Stender, *W. W.*, electrolytic working of brass cuttings in hydrochloric acid solution, B., 223.
 Steneck Trust Co. See Lowy, *O.*
 Stenkhoff, *R.* See Schenck, *R.*
 Stenning, *W. W.* See Broadbridge, *W.*
 Stenström, *W.*, and Goldsmith, *N.*, determination of the dissociation constants of phenol and of the hydroxyl group of tyrosine by means of absorption measurements in the ultraviolet, A., 204.
 Steopoe, *A.*, preparation of colloidal manganese dioxide. II., A., 108.
 constitution of α -naphtholisin, A., 673.
 Stepanov, *A. V.*, Preobraschenski, *N.*, and Schtschukina, (*Mlle.*) *M.*, products of the bromination of paracetaldehyde. II., A., 42.
 Stepanov, *A. V.*, and Schtschukina, (*Mlle.*) *M.*, aldol condensation of formaldehyde and acetaldehyde, A., 647.
 Stepanov, *A. V.* See also Krassuski, *K.*
 Stepf, *F.* See Hüchel, *W.*
 Stephani, *H.* See Krupp Grusonwerk A.-G., *F.*
 Stephen, *W. E.* See Baly, *E. C. C.*
 Stephens, *D. J.*, and Evans, *E. J.*, magnetic rotary dispersion of water, alcohol, and water-alcohol mixtures, A., 295.
 Stephens, *F. G. C.*, Anderson, *L. J.*, and Cash, *W. A.*, production of titanium-containing pigments, (P.), B., 661.
 Stephens, *H. N.*, oxidations in the benzene series by gaseous oxygen. II. Alkylbenzenes with two or more carbon atoms in the side-chain, A., 48.
 apparatus for circulating gases, A., 438.
 Stephenson, *R. E.*, replaceable bases in some Oregon soils, B., 728.
 Stephenson, *S. E.* See Harding, *J. S.*
 Stepp, *W.*, Fenlgen, *R.*, and Voit, *K.*, plasmalogen. I. Occurrence of plasmalogen in body-fluids, A., 370.
 Steppes, *F. E. K.*, Traun, *H. O.*, and Traun & Söhne, *H.*, manufacture of transparent and colourless condensation products of carbamide and solid polymerides of formaldehyde, (P.), B., 564.
 Steppuhn, *O.*, and Duret-Delage, *Y.*, mechanism of autolysis. VII. Autolysis of organs, A., 483.
 Steppuhn, *O.*, and Utkin-Ljubovzov, *X.*, experimental alteration of tryptic activity of blood-serum, A., 585.
 Sterling, *J. R.*, separators for removing entrained oil from hot vapours, (P.), B., 32.
 Sterling Blower Co. See Christoph, *G. W.*
 Stern, *A.*, purification of dirty soap- and soda-solutions, (P.), B., 227.
 Stern, *A.* See Fraenkel, *W.*
 Stern, *E.*, manufacture of starch products and dry starch products, (P.), B., 612.
 binding medium for dyes, (P.), B., 708.
 Stern, *J.* See Haehn, *H.*
 Stern, *L.*, relation of the catalase system to oxidation processes in animal organs, A., 483.
 Stern, *O.*, method of molecular rays, A., 92.
 Stern, *O.* See also Knauer, *F.*

- Stern, R., sensitisation of cholesterol sols, A., 1025.
 Stern, W., production of lead acetate, (P.), B., 965.
 Sterner-Rainer, L., recrystallisation and annealing of precious metal [silver-copper-gold] alloys, B., 559.
 [aluminium] alloy resistant to sea-water, B., 657.
 Stetter, G., determination of the mass of particles arising from the disintegration of atoms, A., 4.
 loss of charge of H-particles, A., 494.
 determination of the mass of the particles ejected from aluminium, carbon, boron, and iron when bombarded with α -particles, A., 494.
 Stetter, G. See also Ortner, G.
 Stettiner Chamotte-Fabrik A.-G., apparatus for discharging coke ovens, etc., (P.), B., 868.
 Stettiner Chamotte-Fabrik A.-G. vorm. Didier, continuous operation of retorts for the production of gas and coke, (P.), B., 273.
 coking or carbonising ovens, (P.), B., 694.
 doors for gas retorts, (P.), B., 868.
 Steubing, W., Döppler effect in canal-rays in hydrogen and the Balmer series, A., 919.
 Steudel, H., inclusions in light metals [and steels] and their effect on mechanical properties, B., 582.
 Steudel, H., and Ellinghaus, J., characterisation of pepsin action. III., A., 698.
 Studemann, W. See Hüttig, G. F.
 Steuer, W., general formula for calculating the calorific value of solid fossil fuels from their ultimate analyses, B., 4.
 determination of the calorific value of fuels. I. and II., B., 33, 161.
 direct determination of nitrogen in illuminating and heating gases, B., 34.
 Steur, J. P. K., *van der*, addition of iodine to unsaturated oils, fats, and fatty acids in an organic solvent. I., B., 494.
 addition of iodine to unsaturated oils, fats, and fatty acids in an organic solvent. II. Determination of a mixture of oleic and elaidic acids. III., B., 562.
 Steven, L. O., and Anacker, E., determination of acid in tan liquors by dialysis, B., 611.
 Stevens, D. R., and Marley, S. P., comparison of gasolines by analytical and engine tests, B., 384.
 Stevens, H. P., smoked sheet rubber prepared with dinitro-o-cresol, B., 51.
 samples [of rubber] prepared with *p*-nitrophenol, B., 197.
 manufacture of vulcanite and of composite materials, including vulcanite, (P.), B., 533.
 Stevens, J. L., concentration of ores, (P.), B., 225.
 Stevens, K. P., amount of light emitted by mixtures of *Cypridina* luciferin and luciferase, A., 901.
 Stevens, R. H., Norris, G. C., and Watson, W. N., removal of phosphorus from metal-bearing solutions, (P.), B., 481.
 purification of industrial zinc solutions preparatory to electrolysis, (P.), B., 481, 943.
 recovery of vanadium from solutions, (P.), B., 555.
 acid extraction of metals such as zinc and vanadium, (P.), B., 560.
 removal of silica from zinc, copper, and vanadium solutions, (P.), B., 701.
 Stevens, R. H. See also Gepp, H. W.
 Stevens, T. S., synthesis of protopine and allied alkaloids. I., A., 265.
 Stevenson, E. P., production of carburetted water-gas, (P.), B., 577.
 Stevenson, E. P., and Little, Inc., A. D., production of sodium fluoride, (P.), B., 677.
 Stevenson, E. P. See also Petroleum Chemical Corporation.
 Stevenson, R. See Parsons, C. E.
 Stewart, A., and Constant Co., C. L., recovery of ingredients of waste lead battery paste, (P.), B., 107.
 treatment of discarded lead battery plates, (P.), B., 583.
 Stewart, Alexander. See McBain, J. W.
 Stewart, C. P., and Percival, G. H., calcium metabolism. I. Action of the parathyroid hormone on the calcium content of the serum and on the absorption and excretion of calcium, A., 486.
 Stewart, G. N. See Rogoff, J. M.
 Stewart, G. W., and Morrow, R. M., X-ray diffraction in liquids; primary normal alcohols, A., 1015.
 Stewart, G. W., and Morrow, R. M. [with Crozier, W. D.], molecular space array in liquid primary *n*-alcohols: the cybotactic state, A., 612.
 Stewart, G. W., Morrow, R. M., and Skinner, E. W., diffraction of X-rays in liquids, A., 1130.
 Stewart, H. C., and Westmoreland Chemical & Color Co., manufacture of iron oxide, (P.), B., 884.
 Stewart, J. See Woodman, H. E.
 Stewart, L. G., plastic magnesia [magnesium oxychloride] cements, B., 878.
 Stewart, T. D., and Aston, J. G., decomposition of quaternary ammonium hydroxides; methylalkoxymethyldiethylammonium hydroxides, A., 862.
 Stiasny, E., and Balányi, D., chrome tanning. IV. Properties of basic chromium chloride liquors, B., 393.
 Stiasny, E., and Orth, F., effect of a synthetic tan ("Gerbstoff F") on the properties of some vegetable tannins, B., 497.
 Stibium Products Co. See Stark, R. E.
 Stich, C., colorimetric determination of minute quantities of dissolved phosphorus in oil, B., 851.
 Stickings, R. W. E., and May & Baker, Ltd., manufacture of basic bismuth salts of arylarsinic acids, (P.), B., 349.
 manufacture of organic compounds of arsenic, (P.), B., 925.
 Stickings, R. W. E. See also Ewins, A. J.
 Stieger, K. See Bensa, F.
 Stieglitz, J. See Terry, (Miss) E. M.
 Stikarovsky, A., assay of *Hyoscyamus*, B., 266.
 Still, C., distillation of solid fuels, (P.), B., 595.
 coke oven, (P.), B., 643, 804.
 distillation of solid fuel in coke ovens, (P.), B., 643.
 gas-fired furnaces, more particularly for coke- and gas-producing furnaces, (P.), B., 867.
 elimination of hydrogen sulphide from gases, (P.), B., 867.
 Still, C., and Kuhn, A., distillation and like columns, (P.), B., 208.
 Still, C., and Weindel, A., recovery of by-products [phenols] in coke oven or like plants, (P.), B., 807.
 Stillesen, J. M. A., preparing urea [carbamide], (P.), B., 203.
 treatment of lime-nitrogen [calcium cyanamide], (P.), B., 792.
 Stillwell, A. G., production of fertiliser, (P.), B., 454.
 Stillwell, C. W., colour of the ruby [and the sapphire], A., S.
 Stillwell, G. R. See Ives, H. E.
 Stimson, B. B., changes in oxygen capacity of rabbit haemoglobin following splenectomy, A., 1217.
 Stimson, B. B. See also Ray, G. B.
 Stimson, J. C. See Finch, G. I.
 Stinchfield, R. L., and Eastman Kodak Co., laminated [photographic] film with a layer of polymerised vinyl chloride, (P.), B., 715.
 Stinnes-Riebeck Montan- & Ölwerke A.-G., H. See Hellthaler, T.
 Stintzing, H., possible significance of the tetrahedral numbers in the natural system for the arrangement of protons and electrons in the atom, A., 88.
 sources of error in quantitative chemical analysis by means of X-ray emission spectra, A., 221.
 Stippler, H. See Bruchhausen, F. von.
 Stirlen, E. D., method and apparatus for determining hydrogen-ion concentration, (P.), B., 239.
 Stirnus, A., viscosity determinations of dextrans with the Lawaczek viscosimeter, B., 23.
 Stirnus, A. See also Parow, E.
 Stix, E. See Scholl, R.
 Stobbe, H., and Steinberger, F. K., photochemistry of the alkali and alkaline-earth iodides, A., 428.
 Stobbe, H., and Wildensee, F., tautomerism of the ethyl dicarboethoxyglutaconates, A., 647.
 Stobbe, H., and Zschoch, F., α -truxillic acid, truxone, truxane, indene, and the so-called truxene, A., 347.
 Stoess, B., extraction of gold from sea water, (P.), B., 658.
 Stock, A., constitution of boron compounds, A., 714.
 Stock, A., and Ritter, G., determination of gas density with the gas density balance. II. Ethylene as a comparison gas, A., 102, 506.
 variations in density of the atmosphere, B., 74.
 Stock, E., Storch-Morawski [Liebermann] reaction for abietic acid, B., 19.
 Stockbarger, D. C., production of fluorite in the electric furnace, B., 600.
 Stocker, H. See Winkler, W., A.-G.
 Stockett, J. W., jun., and National Lime Association, manufacture of quick-setting lime, (P.), B., 45.
 Stockhausen, F., electric charges on yeast, and hydrogen-ion concentration: their influence on attenuation and flocculation, B., 589.

- Stockholders Syndicate. See Blumenberg, *H., jun.*
- Stockholms Superfosfat Fabrik Aktiebolaget, wood preservative, (P.), B., 678.
- Stockholms Superfosfat Fabrik Aktiebolaget. See also Thorin, *E. G.*
- Stockle, *M. E.* See Clark, *G. W.*
- Stocks, *H. B.*, reaction between tannin and casein, B., 231.
- Stocks, *H. B.*, and Greenwood, *C. V.*, reaction between tannin and carbohydrates. II., B., 231.
- Stockton, *M.*, and Celite Co., process and apparatus for treating minerals, (P.), B., 114.
- Stoddard, *J. L.*, activity in protein solutions. I. Inert gases; the question of hydration, A., 513.
- electrolytic determination of sodium plus potassium, A., 1223.
- Stoddard, *J. L.* See also Dill, *D. B.*
- Stoensescu, *V.* See Dănilă, *N.*
- Stoesser, *W. C.* See Raiford, *L. C.*
- Stoewener, *F.* See I. G. Farbenind. A.-G.
- Stohr, *R.* See Schmid, *L.*
- Stok, *J.* See Böeseken, *J.*
- Stokes, *J. S.* See Novotny, *E. E.*
- Stoklasa, *J.*, lactic acid as the intermediate product in anaerobic carbohydrate exchange in the animal, A., 588.
- determination of soil fertility, B., 587.
- Stoklasa, *J.* [with Dvořák, Bareš, *J.*, Šilhavý, and Štrupl], distribution of iodine in nature and its physiological significance in vegetable and animal organisms, A., 171.
- Stolfi, (*Miss*) *A.* See Caglioti, *V.*, and Zambonini, *F.*
- Stoll, *M.* See Ruzicka, *L.*
- Stoll, *W.*, moulding sand, (P.), B., 848.
- Stollberg, *B.*, production of potassium chloride from carnallite, (P.), B., 298.
- Stollé, *R.*, so-called "substituted dihydropentazines" of Chattaway and Parkes, A., 162.
- Stollé, *R.* [with Nieland, *N.*, and Merkle, *M.*], Curtius rearrangement of carbamyl azides; formation of benzpyrazolones and bimolecular carbonylhydrazines, A., 885, 1203.
- Stollenwerk, *W.*, decomposition of phosphate rock by sulphuric acid, B., 554.
- decomposition of crude [calcium] phosphate with sulphurous acid and with ammonium sulphite, B., 652.
- Stolz, *F.* See I. G. Farbenind. A.-G.
- Stone, *T. W.*, and Western Gas Construction Co., gas-purifying apparatus [oxide purifier], (P.), B., 770.
- Stone, *W. B.*, [retaining material in] electric storage batteries, (P.), B., 145*.
- Stone & Co., Ltd., *J.*, and Darker, *A. H.*, [plates for] secondary batteries, (P.), B., 117*.
- Stone & Webster, Inc. See Klein, *A. C.*, and Shippee, *A. E.*
- Stoner, *E. C.*, magnetism and molecular structure, A., 295.
- Stopes, *M. C.*, crystalline nature of the chief constituent of ordinary coal, A., 137.
- Storch, *H. H.* See Gauger, *A. W.*
- Storey, *O. W.* See Burgess Laboratories, Inc., *C. F.*
- Storoni, *E.*, heat exchange apparatus [for lubricating oil], (P.), B., 7.
- Stothert & Pitt, Ltd., and Minty, *W.*, drying machines, (P.), B., 240.
- Stott, *V. H.*, viscous properties of glass, B., 219.
- Stouder, *F. D.*, and Adams, *R.*, polyhydroxymethylanthraquinones. IX. Structure of rubiadin, A., 972.
- Stover, *N. M.*, and Hopkins, *B. S.*, fungicidal and bactericidal action of selenium and tellurium compounds, B., 374.
- Stowell, *F. P.*, adsorption of ions from sea-water by sand, A., 748.
- physical and chemical conditions in the sea-water of the Zoological Society's aquarium, B., 205.
- purification of sea-water by storage, B., 205.
- Stowell, *F. P.* See also McKeown, *A.*
- Strachan, *J.*, microscopical structure of paper-making fibres in relationship to their manufacturing properties, B., 934.
- Strache, *H.*, complete gasification of bituminous fuels in alternately-operated generators, (P.), B., 100*.
- derivation of coal from lignin, B., 178.
- Strache, *H.*, and Brandl, *A.*, carbonyl number of coals and its relation to the age [of the coal deposit] and the degree of weathering, B., 4.
- Strack, *E.* See Wrede, *F.*
- Stradling, *R. E.*, and Brady, *F. L.*, fire-resistant construction, B., 780.
- Stratford, *N.* See Evers, *H. H.*
- Strain, *H. H.*, hydrobenzamide and benzaldimine as ammono-aldehydes, A., 767.
- metallic salts of lophine, 1:2:4-triazole, and tetrazole, A., 979.
- Straman, *J. F. S.*, flower waxes, B., 146.
- Stranathan, *J. D.*, and Strong, *J.*, viscosities, electrical conductivities, and specific volumes of acetic acid-stannic chloride solutions, A., 1020.
- Stransky, *E.*, inorganic salt balance. VI. Influence of radium emanation on salt balance of the rabbit, A., 74.
- Strassberger, *L.* See Pauly, *H.*
- Strasser, *A.*, coating iron articles with a heat-conducting metal, (P.), B., 194, 848*.
- manufacture of lead electrode for accumulators, (P.), B., 820.
- Strasser, *L.* See Aletter, *F.*
- Stratford, *C. W.*, distillation of oil, (P.), B., 274.
- Strathmeyer, *W.* See Wilke, *E.*
- Stratmann & Werner, and Werner, *F.*, producing cooling liquids, (P.), B., 65.
- Stratton, *A.* See Stringer, *H. B.*
- Stratton, *F. J. M.* See Davidson, *C. R.*
- Stratton, *J. A.*, scattering coefficient for short waves according to Schrödinger's theory, A., 607.
- Straub, *F.* See De Montmollin, *G.*, and Society of Chemical Industry in Basle.
- Straub, *F. G.* See Parr, *S. W.*
- Straub, *W.*, extraction of total alkaloids from ergot, (P.), B., 714.
- Straumanis, *M.* See Centnerszwer, *M.*
- Strauss, *B.*, non-rusting steels, B., 781.
- Strauss, *M. L.* See Richards, *D. W., jun.*
- Strausser, *P. W. C.* See General Motors Corporation.
- Strebinger, *R.*, and Flaschner, *E.*, micro-determination of bismuth, A., 334.
- Strecker, *G. A.*, shaft furnace for roasting ores and calcining fine-grained materials, (P.), B., 337.
- Strecker, *W.*, and Herrmann, *A.*, volumetric determination of bismuth, A., 1048.
- Street, *W. A.*, and Hey, *H.*, purification of waste lubricating oils, (P.), B., 931.
- Streeter, *L. R.*, physical properties of commercial dusting and spraying materials, B., 826.
- Strehly, *J.* See Hemmelmayer, *F.*
- Streicher, *S.*, irregularities in silver[-copper alloys] and [methods of obtaining] silver [castings] free from blowholes, B., 488.
- Streitwolf, *K.* See I. G. Farbenind. A.-G.
- Stringer, *H. B.*, and Stratton, *A.*, [tank] method of development of photographic film or the like and apparatus therefor, (P.), B., 765.
- Štřiteský, *J.*, photoactivity of cholesterol, A., 1066.
- Strobel, *A.*, and Scharrer, *K.*, biochemical utilisation of the various forms of phosphoric acid in fertilisers, B., 121.
- Strobel, *A.* See also Niklas, *H.*, and Scharrer, *K.*
- Strohecker, *R.*, detection of neutralised cream, B., 568.
- Strong, *J.* See Stranathan, *J. D.*
- Struffmann, *F.* See Rojahn, *C. A.*
- Štrupl. See Stoklasa, *J.*
- Strutinski, *L. B.*, X-ray analysis of clays, B., 219.
- structure of the crystalline phases of porcelain, B., 557.
- Struve, *O.*, interstellar calcium, A., 915.
- Struyk, *A. P.* See Kluyver, *A. J.*
- Strzoda, *W.*, concentration of sulphuric and nitric acids by the Strzoda system, B., 651.
- Štscherbakov, *I.*, and Essin, *O.*, electro-deposition of chromium from chromic acid solutions, A., 839.
- Stuart, *A. T.*, electrolytic cell [for electrolysis of water], (P.), B., 849.
- Stuart, *J. M.* See Bengough, *G. D.*
- Stuart, *K. E.*, and Hooker Electro-Chemical Co., electrolytic method and apparatus, (P.), B., 492.
- Stuart, *M.*, carbon ratio, B., 739.
- Stuart, *N.* See Kay, *F. W.*
- Stubbing, *H.* See Taylor, *A. G.*
- Stubbings, *E. O.*, [jaw] crushing machines, (P.), B., 95.
- Stubbings, *W. V.* See British Dyestuffs Corporation, Ltd.
- Stubbs, *J. R.* See Elsdon, *G. D.*
- Stuber, *B.*, and Lang, *K.*, blood-coagulation. XV. Relation of glycolysis to coagulation of blood, A., 68.
- Stuch, *P.*, influence of manuring, etc., on the strength of straw of cereals, B., 54.

- Stuckenschmidt, A. See Braun, J. von.
- Stuckert, G. V., chemical composition of brain. II., A., 1104.
- Studiengesellschaft für Nutzbarmachung Schweizerischer Erzlagerrstätten, production of fused cement, (P.), B., 909.
- Studienresellschaft für Wirtschaft & Ind. m.b.H., [varying the resistance of] electric furnaces, (P.), B., 116.
- utilisation of ultra-violet rays for supporting combustion in heat engines and the like, (P.), B., 517.
- Studiengesellschaft für Wirtschaft & Ind. m.b.H. See also Weckerle, F.
- Stueber, A. H. See Schlegel, J. W.
- Stüber, W., determination of caffeine in black tea, B., 153.
- Stuhlman, O., jun., ultra- and extra-ultra-violet spectrum of iron as developed by the inverse photo-electric effect, A., 998.
- Stull, A. See Bogert, M. T.
- Stumper, R., influence of ash on calorific power, B., 130.
- influence of the ash content of a coal on the calculated calorific value of the ash-free coal. I. and II., B., 208, 736.
- thermal analysis of the dehydration of gypsum, B., 580.
- dehydration of gypsum, B., 676.
- Sturgeon, R. A., centrifugal separating apparatus, (P.), B., 929*.
- Sturm, E. See Klages, A.
- Sturme, J. J. H., rendering articles moulded from wood pulp waterproof, (P.), B., 873.
- Sturtevant, T. J., and Sturtevant Mill Co., [screen] separator, (P.), B., 352.
- Sturtevant Co., B. F., and Derry, G. C., heat-exchange apparatus, (P.), B., 897.
- Sturtevant Mill Co. See Sturtevant, T. J.
- Stutchbury, M. S., Bachmann, W., and Hebler, F., production of a water-soluble evaporation product from [rubber] latex, (P.), B., 229.
- Stutchbury, M. S., Bachmann, W., Hebler, F., and Börnegg, C. B. von, concentration of the globuloids in rubber latex, (P.), B., 948.
- Stuttgarter Versicherungs-Ges.m.b.H., solder for aluminium and its alloys, (P.), B., 913.
- Stutz, G. F. A., effects of ultra-violet light on paint vehicles, B., 84.
- absorption of ultra-violet light by paint vehicles, B., 755.
- Stutz, G. F. A., and Pfund, A. H., relative method for determining particle size of pigments, B., 146.
- Styles, E. R. See Hunter, R. F.
- Subbarow, Y. See Fiske, C. H.
- Subervie, A. R., and Dulou, R., pulp from resinous wood, (P.), B., 185.
- Subrahmaniam, G., variation of logarithmic decrement with amplitude and viscosity of certain metals. IV., A., 404.
- Subrahmaniam, V. See Challenger, F.
- Sucharda, E., and Bobranski, B., apparatus for the semi-micro-determination of mol. wts. by the ebullioscopic method, A., 849.
- Sucharda, E. See also Bobranski, B.
- Sucksmith, W. See Potter, H. H.
- Sudenburger Maschinenfabrik & Eisengiesserei A.-G., and Ostermann, W., apparatus for the mechanical production of colloidal material, (P.), B., 352.
- Sudendorf, T., and Penndorf, O., occurrence, detection, and determination of ethyl chloride in perfumes, B., 378.
- Süddeutsche Telefon-Apparate-, Kabel-, & Drahtwerke Akt.-Ges., production of oxidised cathodes, (P.), B., 258.
- production of a homogeneous mixture for coating metallic conductors composed of [metals of] the platinum group with a view to improving their electronic emission, (P.), B., 944.
- Süssenguth. See Bodenstein, M.
- Sußern, E. S., burning powdered or liquid fuel in furnaces, (P.), B., 99.
- Suganuma, I., adsorption and osmosis of alkalis in a gelatin gel with and without addition of lecithin, A., 509.
- Sugden, S., arrangement of molecules on the surface of pure liquids, A., 108*.
- molecular volumes at absolute zero. I. Density as a function of temperature. II. Zero volumes and chemical composition, A., 920.
- Sugden, S. [with Freiman, A.], the parachor and chemical constitution. V. Evidence for the existence of singlet linkages in the pentachlorides of phosphorus and antimony, A., 714.
- Sugden, S., and Wilkins, H., the parachor and chemical constitution. IV. Three- and four-membered rings, A., 244.
- Sugie, S., penetrability of various rays through glasses. I. Ultra-violet ray penetration through alkali-limo glasses, and the method of manufacture of glass transparent to ultra-violet rays. II. Ultra-violet ray penetration through alkali-barium glass and alkali-zinc glass. III. Glasses non-transparent to visible, but transparent to ultra-violet rays, A., 90.
- Sugiura, Y., number of dispersion electrons for the continuous spectra and series spectra of hydrogen, A., 494, 801.
- numerical evaluation by wave mechanics of the mean values of the *ortho*- and *para*-terms of He and Li from polarisation terms, A., 909.
- application of Schördinger's wave functions to the calculation of transition probabilities for the principal series of sodium, A., 1004.
- Suhl, R. L. See International Nickel Co.
- Suhrmann, R., and Kollath, W., visible and ultra-violet spectrum of blood and of its constituents, A., 688.
- Suida, H., technical production of concentrated acetic acid, B., 123.
- preparation of concentrated acetic acid from dilute aqueous or crude dilute pyroligneous acid, (P.), B., 316.
- production of concentrated acetic acid from dilute acid, (P.), B., 349*.
- concentration of dilute acetic acid, (P.), B., 380*, 541.
- production of ethyl chloride, (P.), B., 764*.
- recovery of concentrated acetic acid and other products originating in the carbonisation of wood, (P.), B., 956.
- Suida, H., and Pöll, H., composition of acetone oil, A., 1055.
- acetone oils, B., 458.
- Suida, H., and Sadler, H., digestion of beech wood with nitric acid, B., 773.
- Suida, H., and Salvaterra, H., fire- and weather-proofing wood, (P.), B., 966.
- Suida, H., and Wacek, A., purification of beechwood tar oils and their constituents, (P.), B., 183.
- Suirokomski, V. S., production of titanium dioxide, carbide, and tetrachloride, B., 701.
- titanium and its application in the industries, B., 704.
- Sukiennik, S. See Zetzsche, F.
- Sullivan, B., and Near, C., chemical constituents which influence gluten quality, B., 154.
- relation of the magnesium in the ash and the lipid-protein ratio to the quality of wheats, B., 313.
- ash of hard spring wheat and its products, B., 590.
- Sullivan, E. J., flour improver, (P.), B., 569.
- Sullivan, F. W., jun., Chalkley, L., jun., and Standard Oil Co., manufacture of lead alkyl compounds [lead tetraethyl], (P.), B., 237.
- Sullivan, F. W., jun., McGill, W. J., and French, A., solubility of paraffin wax in oil, B., 960.
- heat of solution of paraffin wax, B., 960.
- Sullivan, (Miss) J. See Reilly, J.
- Sullivan, J. D., heavy liquids for mineralogical analyses, B., 414.
- Sullivan, R. S. See Davies, W. L.
- Sullivan, W. E. See Russell, J.
- Sulman, H. L., and Picard, H. F. K., treatment of tin ores, (P.), B., 847.
- Sultzberger, J. A., determination of small quantities of bismuth in tissue, excreta, blood, and bone, A., 481.
- Sulzer Frères Sociétié Anonyme, absorption refrigerating machines, (P.), B., 802.
- Sulzer Frères Sociétié Anonyme. See also Wirth, E.
- Sumet Corporation. See Judy, W. H.
- Summers, B. S., manufacture of paper pulp, (P.), B., 905*.
- Summers, B. S., and Locomotive Terminal Improvement Co., plating metals [iron], (P.), B., 705.
- Summerton, A. J., treatment of [precious metal] ores for the removal of sulphur, tellurium, arsenic, and the like, (P.), B., 726.
- Sumpf, P. See Todt, F. W.
- Sun-Maid Raisin Growers of California, process and apparatus for treating raisins or other dried fruit, (P.), B., 123.
- apparatus for conditioning heated raisins or other dried fruit, (P.), B., 123.
- Sun Oil Co. See Alleman, G., McKee, J., Maitland, H. T., Pew, A. E., jun., and Thomas, H.
- Sunderland, A. E. See Niederhauser, F. C.
- Sunderman, F. W. See Austin, J. H.
- Sundstrom, E. See Klingstedt, F. W.
- Super Coal Process Co. See Bowen, R.

- Supniewski, J. V., Ishikawa, Y., and Geiling, E. M. K., effect of insulin injected intrathecally, A., 994.
- Supplee, G. C., and Dow, O. D., antirachitic and calcifying properties of dried summer and winter milk, irradiated and non-irradiated, A., 796.
- vitamin-A of irradiated milk, A., 1223.
- Sur, N. K., arc spectrum of zinc, A., 390.
- arc spectrum of lead, A., 390.
- origin of terms of the spectrum of cobalt, A., 802.
- Sur, N. K. See also Saha, M. N.
- Suranyi, J. See Meyerhof, O.
- Suranyi, L., rôle of lipins in biology and immunology, A., 1108.
- Surdi, T., manufacture of artificial wood, (P.), B., 780.
- Sure, B., dietary requirements for reproduction. VIII. Reproduction-deficient diet. IX. Cod-liver oil *versus* wheat oil as sources of vitamin-E. X. Vitamin-B requirements for lactation. XI. Potency of butter-fat in vitamin-E, A., 905.
- Surface Combustion Co., furnaces for heating, (P.), B., 688.
- Surtees, R., machines for emulsifying, mixing, or grinding materials, (P.), B., 319.
- Suryanarayana, M. See Nath, B. V.
- Suski, P. M., effect of administration of active iron compounds on the course of avitaminosis in pigeons, A., 1223.
- Sussmann, J. J. See Kohn, M.
- Sutcliffe, E. R., distillation of carbonaceous substances, (P.), B., 468.
- production of activated carbonaceous substances, (P.), B., 469*.
- Sutcliffe, J. A., and Cobb, J. W., influence of the ash constituents in the carbonisation and gasification of coal, B., 833.
- Sutcliffe, J. A., Lay, F. C., and Prichard, W. L., latent heat of vaporisation of benzene at temperatures above the b. p., A., 717.
- Sutherland, B. P., and Maass, O., propylene-halogen hydride reaction, A., 441.
- Sutherland, B. P. See also Marshall, J.
- Sutherland, D. M., jun., making electric-insulation bodies, (P.), B., 48.
- Suto, K., Bang's method for micro-determination of nitrogen, A., 996.
- Sutton, (Miss) E. E. See McDonald, (Miss) M. C.
- Sutton, H., and Sidery, A. J., protection of aluminium and its alloys against corrosion, B., 818.
- Sutton, H., and Willstrop, J. W. W., surface film of aluminium, A., 530, 634.
- nature of the film produced by anodic oxidation of aluminium, B., 818.
- Sutton, R., causes of failure in heat-resisting alloys, B., 879.
- Sutton, W. R. See Rhodes, F. H.
- Sutu, Z. See Fleury, P.
- Suverkrop, E. A., manufacture of arsenic acid, B., 249.
- Suwelack, O. See Fricke, R.
- Suzuki, Y., formation of hydroxy-derivatives of diphenylene oxide from resorcinol, A., 571.
- Svedberg, T., determination of mol. wt. by centrifuging. II., A., 716.
- Svedberg, T., and Nichols, J. B., mol. wt. of egg-albumin. I. In electrolyte-free condition, A., 99.
- Sveen, K., effecting agglomeration in paper pulp and other suspensions and mixtures, (P.), B., 329*.
- Svensgaard, E., urea content of capillary and venous blood, A., 689.
- Svenska Akkumulator Aktiebolaget Jungner, and Lundborg, B. H., fluid filters, (P.), B., 896.
- Svenska Aktiebolaget Mono, gas analysing apparatus, (P.), B., 592.
- Svenska Aktiebolaget Mono. See also Rodhe, O.
- Svensson, C., leaching of molybdenite ores, B., 336.
- Svensson, K. J., and Norling, K. A. P., drums for centrifugal separating apparatus, (P.), B., 128.
- de-aeration of liquids, (P.), B., 176.
- centrifugal separating machines, (P.), B., 241.
- centrifugal treatment of liquids, (P.), B., 287.
- Swallow, A. See Calico Printers' Association, Ltd.
- Swan, E., and Urquhart, A. R., adsorption equations, A., 305.
- Swann, H. See Baddiley, J.
- Swanson, C. O., and Working, E. B., mechanical modification of dough to make it possible to bake bread with only the fermentation in the pan, B., 395.
- Swanson, E. E., and Hargreaves, C. C., standardisation and stabilisation of aconite preparations. III., B., 504.
- Swarbrick, T., physiology of fruit trees. I. Seasonal starch content and cambial activity in one- to five-year-old apple branches, A., 797.
- Sward, G. G., tests with Hickson's "ice-cold" oxidation method for titrating chrome-green pigments, B., 585.
- Sward, G. G., and Gardner, H. A., influence of driers on the properties of some ester gum and synthetic resin varnishes, B., 684.
- Sward, G. G. See also Gardner, H. A.
- Swarts, F., mechanism of Claisen's reaction, A., 132.
- indirect interatomic effects in organic compounds, A., 226.
- trifluoro-alcohols. I. Trifluoro-*tert*-butyl alcohol, A., 442.
- trifluoroacetoacetic acid and ethyl trifluoroacetoacetate, A., 646.
- trifluoroacetoacetic acid, A., 646.
- ethyl trifluoroacetoacetate, A., 646.
- trifluoroacetone, A., 1055.
- Swartz, O. E. See Krauskopf, F. C.
- Swearingen, L. E. See Reyerson, L. H.
- Sweeney, D., carbonating milk or cream, (P.), B., 668.
- Sweeney, M. A. See Walker, E. L.
- Sweeney, O. R., process of elaborating corn stalks into pulp for paper-making, etc., (P.), B., 963.
- Sweeney, O. R., and Riley, R., effect of hydrogen-ion concentration in revivifying zeolites, B., 94.
- Sweeney, W. T. See Hidnert, P.
- Sweet, S. S. See Sheppard, S. E.
- Sweetland, E. J., filter, (P.), B., 801.
- Swehnen, R., use of vanadium compounds as driers, B., 259.
- Switzer, C. W., light scattering of aqueous salt solutions, A., 510, 932.
- Swenson Evaporator Co. See Badger, W. L.
- Swiderek, M., active charcoal; charcoal activated by mineral substances, A., 198.
- Swientoslawski, W., reconciliation of values obtained for thermochemical constants of organic compounds, A., 194, 629*.
- ebullioscope, A., 642.
- Swientoslawski, W., and Bobińska, J., standardisation of Richards' thermochemical data, A., 1142.
- correction of Swarts' thermochemical data, A., 1143.
- Swientoslawski, W., and Dorabalska, (Mlle.) A., adiabatic micro-calorimeter for radiological researches, A., 1163.
- Swientoslawski, W., and Poznanski, S., equilibrium constant [Kg] of the esterification reaction in the gaseous phase, A., 204.
- Swientoslawski, W., and Starczewska, (Mlle.) H., correction of thermochemical data, A., 22.
- Swift, E. L., and Swift, V., metal-coated [are] electrode, (P.), B., 529.
- Swift, R. W. See Forbes, E. B.
- Swift, V. See Swift, E. L.
- Swindell, W., & Brothers. See Brooke, F. W.
- Swinden, T., and Bolsover, G. R., cold-rolled strip steel, B., 446.
- Swindin, N., [automatic] siphon, (P.), B., 768.
- [waterproofing of] tanks, vats, pits, etc., (P.), B., 800.
- Swinder, J. A., effects of changes in potential and frequency on the line spectrum of certain gases, A., 82.
- Swingle, W. W., function of the suprarenal cortex. I. Blood changes following bilateral suprarenalctomy in cats, A., 381.
- Swingle, W. W. [with Eisenman, A. J.], function of the suprarenal cortex. II. Acid-base equilibrium, A., 381.
- Swint, W. R., and Du Pont de Nemours & Co., E. I., high explosive composition, (P.), B., 204.
- Swirls, (Miss) B., internal conversion of γ -rays, A., 1004.
- Swoboda, H. O., Richards, E. M., and Swoboda, H. O., Inc., cracking liquid hydrocarbons, (P.), B., 211*.
- Swoboda, H. O., Inc. See Swoboda, H. O.
- Sworykin, A. J., solubility of natural hemihydrate of gypsum after heating at various temperatures, A., 820.
- Symes, T. E. See Glasstone, S.
- Symington, S., separation of solids from liquids, (P.), B., 896.
- Symmes, E. M., and Hercules Powder Co., granulating ammonium nitrate, (P.), B., 158.
- ammonium nitrate explosive, (P.), B., 158.
- Symons, E., vertical disc crushers, (P.), B., 31.
- Symons, E. B., and Symons Bros. Co., gyratory crusher, (P.), B., 31.
- Symons Bros. Co. See Symons, E. B.
- Syntheta, A.-G., manufacture of artificial silk, (P.), B., 552.
- Synthetic Ammonia & Nitrates, Ltd., and Humphrey, H. A., centrifugal apparatus [for separation of gases], (P.), B., 842.

- Synthetic Ammonia & Nitrates, Ltd., Slade, R. E., and Harrison, C. F. R., low-temperature distillation of carbonaceous material, (P.), B., 868.
- Synthetic Ammonia & Nitrates, Ltd., and Smith, Harold G., production of methyl alcohol and other oxygenated organic compounds, (P.), B., 828.
- Synthetic Ammonia & Nitrates, Ltd., Smith, P. A., and Smith, Harold G., manufacture of acetic acid and acetates, (P.), B., 571.
- production of acid amides and salts, (P.), B., 571.
- Syracuse Pulverizer Corporation and Briggs, A. J., [fuel] pulveriser, (P.), B., 435.
- Syrkin, I. K., velocity of chemical reactions, A., 523.
- application of the equations of chemical kinetics to the phenomenon of emission of electrons from red-hot bodies, A., 805.
- Szanto, A. See Nemeth, K.
- Szczeniowski, S., fluorescence yield of solutions [of sodium fluorescein], A., 1007.
- Szczepanowski, S. P., separating mixtures of gases and vapours into fractions of different molecular weight, (P.), B., 2.
- Szczesny-Heyl, S. V. See Börnstein, E.
- Szebellédy, L., determination [and separation] of calcium, strontium, and barium, A., 223.
- Szego, L. See Cambi, L.
- Szegvári, A. See Anode Rubber Co.
- Szelestey, J. See Gröh, J.
- Széll, K., rotation-vibration entropy of a diatomic gas, A., 927.
- Szent-Györgyi, A. von, rôle of hydrogen peroxide in biological oxidations, A., 76.
- cell respiration. VI. Function of the suprarenal cortex and the substance C_{XII}, A., 381.
- cell respiration. V. Mechanism of some plant oxidations, A., 384.
- chemistry of the adrenal cortex, A., 691.
- functions of the adrenal cortex and mechanism of biological oxidations, A., 1114.
- Szikla, G., and Rozinek, A., gasification of fuel, (P.), B., 180.
- Szilard, B., recovery of gold from sea water, (P.), B., 970.
- Szivesy, G., Born's dipole theory of anisotropic liquids, A., 94.
- Szmukler, C. See Établissements Reynier.
- Szperl, L. [with Librach, J., and Szpic, E.], action of sulphur on organic compounds. IX., A., 241.
- Szpic, E. See Szperl, L.
- Szukiewicz, W. See Kopaczewski, W.
- Szyszkowski, B., dilution law for strong electrolytes, A., 204, 415.
- thermodynamic theory of reversible electrodes, A., 420.
- T.
- Tabata, K., causes of the surface devitrification of glasses, B., 219.
- surface devitrification of glass. III. Devitrification of alkali silicates. IV. Devitrification of alkali lead silicates, B., 331.
- determination of the constitution of glasses, B., 749.
- Tabata, K., Yegami, K., and Moriyasu, S., weathering of glasses. I., A., 531.
- Tabei, S. See Uemura, T.
- Tabern, D. L. See Orndorff, W. R.
- Taboury, F., basic beryllium carbonate, A., 842.
- Tacke, B., and Arnd, T., molecular relationships in zeolitic silicates in relation to soil reaction and fertiliser requirements, B., 21.
- Tadokoro, T., specificity of proteins in different rice varieties, A., 384.
- Tadokoro, Y., effect of porosity upon thermal conductivity, diffusibility, and heat capacity at high temperatures, B., 75.
- Taeschner, K. E., reducing the intensity of photographic silver images, (P.), B., 61.
- reducing photographic negatives, positives, films, bromide, and gaslight prints, (P.), B., 93.
- Täufel, K., and Cerezo, J., changes in the characteristic indices of fats during the production of rancidity, B., 915.
- Täufel, K., and Wagner, C., actual acidity, potential acidity, and buffering, A., 20.
- buffering in homogeneous and heterogeneous systems, A., 35.
- relation of titration acidity and p_H values [especially for mixtures of weak acids], A., 434.
- significance and value of the titration curves of wine, B., 612.
- Tagliani, G., and Chemical Works (formerly Sandoz), treatment of cotton or other threads containing cellulose, (P.), B., 776.
- Taglietti, M., and Hirsch, S., denaturising of alcohol, (P.), B., 424.
- Taguchi, S. See Grasser, G.
- Taipale, K. A., catalytic hydrogenation of azines, A., 260.
- Tait, A. C., coal-tar disinfectants, B., 62.
- Takahashi, K., nutritive value of fats and lipins, A., 898.
- Takahashi, M., behaviour of isoquinoline in the animal organism, A., 1107.
- Takahashi, T., and Asai, T., acids formed by species of *Rhizopus*, A., 596.
- Takahashi, Y., interpretation of the continuous spectrum of hydrogen, A., 1004.
- Takahasi, K. See Honda, K.
- Takai, K. See Fujii, J.
- Takaki, T., presence of amino-acids in the gall from a bile duct cyst, A., 169.
- Takamatsu, M. See Komori, Y.
- Takamatsu, Y. See Fukushima, I.
- Takamine, J., Takamine, J., jun., and Fujita, N., manufacture of bread, (P.), B., 26.
- Takamine, J., jun., and Fujita, N., manufacture of a yeast stimulant [for bread-making], (P.), B., 616*.
- Takamine, J., jun. See also Takamine, J.
- Takebe, T. See Yamaguchi, Y.
- Takeda, Z. See Ono, K.
- Takemura, K., and Oiwa, K., [nitrocellulose] varnishing preparation, (P.), B., 305.
- Talbert, G. A., Finkle, J. R., and Katsuki, S. S., constituents of sweat, urine, and blood. III. Urea, A., 1105.
- Talbert, G. A., Harris, E. E., Finkle, J. R., and Silvers, S. H., chlorides and non-protein nitrogenous constituents of the sweat, urine, and blood as affected by heat and work, A., 1216.
- Talbert, G. A., and Haugen, C. O., constituents of sweat, urine, and blood. I. Chlorides, A., 788.
- Talbert, G. A., Silvers, S., and Johnson, W., constituents of sweat, urine, and blood. II. Total nitrogen of sweat and urine; total non-protein nitrogen of blood, A., 788.
- Talbot, B., metallurgical furnace plant, (P.), B., 659, 943*.
- Talbot, F. B., Metcalf, K. M., and Moriarty, M. E., epilepsy; rational treatment by production of ketosis, A., 1216.
- Talbot, R. H., and Adams, R., alicyclic derivatives of resorcinol, A., 968.
- Talbot, W. F. See Raiford, L. C.
- Talenti, M., volumetric determination of sulphates, A., 330.
- Tallada, F., extraction of citric acid, (P.), B., 459.
- Tamamushi, B., derivation of adsorption isotherms. II., A., 199.
- Tamaru, K., hardness of different structures in steel, B., 277.
- Tamburrini, V., organic binary equilibria; system glyceryl trinitrate-trinitrotoluene, A., 830.
- Tamiya, H., metabolism of *Aspergillus oryzae*. I., A., 906.
- Tamiya, H., and Ishiuchi, N., adsorptive properties of cellulose, A., 822.
- Tammann, G., molecular constitution of water, A., 93.
- temperature of commencement of internal diffusion in crystals, A., 102.
- effect of addition of less volatile substances on the solubility of non-electrolytes, A., 105.
- influence of temperature on solubility of gases, A., 105.
- m. p. curve of helium, A., 193.
- [reactions in the solid state], A., 314.
- dependence of physical properties of mixtures of water and sulphuric anhydride on concentration, A., 508.
- Tammann, G., and Botschwar, A. A., rate of crystallisation of binary and ternary mixtures from which the pure components separate, A., 196.
- Tammann, G., and Heinzl, A., crystallite orientation in aluminium, A., 1012.
- alteration of the crystal orientation of iron on rolling, A., 1130.
- Tammann, G., and Heusler, O., transformations in homogeneous, anisotropic phases without crystallisation, A., 196.
- Tammann, G., and Hinnüber, J., solubility of metals in mercury and the potentials of very dilute amalgams, A., 304.
- Tammann, G., and Kollmann, K., solubility of metals of the iron group and of copper in mercury, A., 303.
- Tammann, G., and Meyer, H. H., determination of the crystallite orientation [of metals] by the production of lines of slip, A., 399.
- crystallite orientation of copper in relation to the degree of rolling, B., 335.

- Tammann, G., and Meyer, H. H., detection of small inclusions in crystallites with the aid of the production of lines of slip, B., 680.
- Tammann, G., and Rabe, H., relation between the surface tension of very viscous liquids and the temperature, A., 618.
- Tammann, G., and Salge, W., determination of the temperature at which a metal commences to recrystallise, B., 490.
- Tammann, G., and Scheil, E., transformations of austenite and martensite in hardened steels, B., 15.
- Tammann, G., and Tampke, R., ductility, surface tension, and specific heat of glassy substances, A., 618.
- Tampke, R. See Tammann, G.
- Tamura, K., Watanabe, S., and Kaburaki, H., oxygen consumption of the kidney, A., 270.
- Tamura, S., pseudo-twinning in ferrite, and solubility of carbon in α -iron at the Al point, B., 486.
- Tamura, S. See also Carpenter, H. C. H.
- Tan, C. See Uemura, T.
- Tanaka, K. See Yoshida, U.
- Tanaka, K., orientation of aluminium crystals, A., 1012.
- Tanaka, M., new synthesis of alizarin; (condensation of phthalic anhydride with *o*-chlorophenol), A., 566.
- synthesis of purpurin by condensation of phthalic anhydride with 2:4-dibromophenol, A., 972.
- Tanaka, S., arrangement of micro-crystals in beaten gold foil, A., 613.
- Tanaka, S. See also Terada, T.
- Tanaka, Y., magnesium carbonate and the transparency of vulcanised rubber, B., 341.
- economy of low-boiling distillate of fuel gasoline, B., 739.
- Tanaka, Y., and Nagai, Y., inflammability of hydrogen. III. Influence of ethyl selenide and of hydrogen selenide on the limits of inflammability of hydrogen-air mixtures, A., 212.
- inflammability of hydrogen. IV. Influence of hydrogen selenide on the limits of inflammability of hydrogen-air mixtures, A., 833.
- inflammability of hydrogen. V. Influence of tin tetramethyl and lead tetramethyl on the limits of inflammability of hydrogen-air mixtures, A., 1145.
- spontaneous ignition temperatures of inflammable liquids and the effects of anti-knock materials, B., 5.
- effects of aromatic amines and pyridine on the spontaneous ignition temperatures of inflammable liquids, B., 5.
- Tanaka, Y., Nagai, Y., and Akiyama, K., lower limit of inflammability of ethyl alcohol, ethyl ether, methylcyclohexane, and their mixtures, A., 834.
- Tananaev, N. A., spot method of qualitative analysis, A., 223.
- 1159.
- detection of lead by the spot method, A., 1161.
- Tanasescu, I., photochemical reactions in the *o*-nitrotriphenyl-methane series, A., 139.
- new synthesis of acridones, A., 574.
- Tangential Dryers, Ltd. See Portham, R. S.
- Tangl, H., influence of some hormones on the excretion of dyes from the blood, A., 485.
- influence of extracts of spleen, thymus, and thyroid on the growth of young rats, A., 485.
- Tangl, H. See also Farkas, G.
- Tankard, A. R., and Bagnall, D. J. T., examination of fish for formaldehyde, B., 25.
- Tannehill, V. L., and Fort Wayne Engineering and Manufacturing Co., water softener, (P.), B., 718.
- Tanner, C. C., Soret effect, A., 204, 626*.
- Tanner, O. A., and Artstone Burial Vault Co., Inc., manufacture of artificial stone, (P.), B., 221.
- Tanner, W. L. See Grasselli Chemical Co.
- Tanret, G. See Simonnet, H.
- Tantzov, N. V., physico-chemical processes as the effects of the sum total of elementary adiabatic reactions, A., 419.
- Tapley, M. W., and Giesy, P. M., preparation of $\alpha\beta$ -tribromopropane and propadiene, A., 130.
- Taplin, B. See Edser, E.
- Tapping, A., binder for briquetting or moulding fuels, minerals, earths, and other finely-divided substances, (P.), B., 402.
- Tapsell, H. J., and Clenshaw, W. J., properties of materials at high temperatures. I. Mechanical properties of Armco iron, 0.17% carbon steel, and 0.24% carbon steel, with special reference to creep, B., 525.
- Tar & Petroleum Process Co., coke ovens, (P.), B., 866.
- Tarasov, W., Pictet's rule and Born's grating theory, A., 300.
- Tarbox, L. A., and Emlenton Refining Co., revivification of fuller's earth, (P.), B., 181.
- Tardan, J. J., manufacture of lead oxide, (P.), B., 389.
- manufacture of lead monoxide by a wet method, (P.), B., 778*.
- Tarlé, M., surface area and sorption, A., 1135.
- Tarratine Manufacturing Co., Inc. See Hanson, H. H.
- Tartarini, G. See Scagliarini, G.
- Tartarini, M. See Bernardi, A.
- Tarugi, N., reactions of sodium nitroprusside, A., 46.
- Tasaki, T., absorption spectra of naturally occurring benzophenone derivatives, A., 810.
- absorption spectra of coumarin derivatives, A., 810.
- absorption spectra of plant colouring matter of the flavone series. IV. Anthocyanin, catechin, and xanthone derivatives, A., 918.
- absorption spectra of derivatives of acetophenone, A., 1078.
- Taschner, E. See Zellner, J.
- Taslakova, T., influence of inorganic and organic alkali salts on the urinary C:N ratio, A., 72.
- Taslakova, T. See also Watanabe, M.
- Tasman, A., action of hydrazine on meconine and 3-nitromeconine, A., 876.
- velocity measurements on the opening of the lactone ring in derivatives of phthalide, A., 1186.
- Tassilly, E., and Sayoire, R., spectrometric determination of nitrates and nitrites by diphenylamine sulphate, A., 35, 125*.
- Tate, K. L., and Taylor Instrument Cos., gas analysis apparatus, (P.), B., 768.
- Tatebe, T., recovery of nickel from silicate ores, (P.), B., 847.
- Tattersall, T. W. See Nutrimet, Ltd.
- Tattersfield, F., relationship between the chemical constitution of organic compounds and their toxicity to insects, B., 453.
- Tattersfield, F., and Gimingham, C. T., contact insecticides, B., 826.
- Tattersfield, F., Gimingham, C. T., and Morris, H. M., contact insecticides. I. Introduction and methods. II. Toxicity of *Tephrosia vogelii*, Hook, to *Aphis rumicis*, L. III. Insecticidal action of chloro-, nitro-, and hydroxy-derivatives of benzene and naphthalene. IV. Toxicity of certain plants and plant products to *Aphis rumicis*, L., B., 86.
- Tattersfield, F. See also Gimingham, C. T.
- Tatum, A. L. See Koppányi, T.
- Tatum, W. W. See British Dyestuffs Corporation, Ltd.
- Taub, A., permanent standards for the determination of hydrogen-concentration, A., 533.
- Taube, C. See Fischer, H. O. L.
- Taubenhaus, M. See Adlersberg, D., Klisiecki, A., and Mozlowski, W.
- Tauber, H., and Zellner, J., chemistry of oleander, A., 386.
- Tauber, L. See Braun, J. von.
- Taveau, R. de M., and Texas Co., treatment [cracking] of hydrocarbons, (P.), B., 900.
- Taveau, R. de M. See also Texas Co.
- Taylor, A. C., and Olmsted, J. M. D., effect of insulin on the respiratory exchange of decerebrate and decapitate cats, A., 78.
- Taylor, A. G., and Stubbing, H., apparatus for heating liquids [water], (P.), B., 129.
- Taylor, A. M., and Rideal, E. K., electric moment of the sulphur complex, A., 925.
- Taylor, A. M. See also Rawlins, F. I. G.
- Taylor, B. See Major, J. L.
- Taylor, C. A., and Rinkenbaeh, W. H., sensitivities of detonating compounds to frictional impact, impact, and heat, B., 893.
- Taylor, E. A., and Grasselli Chemical Co., production of calcium arsenate, (P.), B., 140.
- Taylor, E. I. See Lowenfeld, M. F.
- Taylor, E. M., decomposition of vegetable matter under soils containing calcium and sodium as replaceable bases, B., 691.
- Taylor, E. R., influence of manganese on the properties of white-heart malleable cast iron, B., 486.
- Taylor, G. B., [catalytic] oxidation of ammonia, B., 936.
- Taylor, G. B., Richardson, A. S., and Du Pont de Nemours & Co., E. I., nitration process and nitrating mixture, (P.), B., 892.
- Taylor, G. I., distortion of crystals of aluminium under compression. II. Distortion by double slipping and changes in orientation of crystal axes during compression. III. Measurements of stress, A., 1017.
- Taylor, H. A., decay of phosphorescence of zinc sulphide, A., 187.
- Taylor, H. A., and Denslow, R. R., thermal decomposition of nitrosyl chloride, A., 403.

- Taylor, H. A., and Pickett, C. F., decomposition of hydrogen sulphide, A., 838.
- Taylor, H. A., and Wesley, W. A., gaseous reaction between hydrogen sulphide and sulphur dioxide, A., 318.
- Taylor, H. F., evaluation of pitch, B., 38.
- Taylor, H. M., application of the U.S.P. X. yeast fermentation test to colloidal silver compounds, B., 858.
- Taylor, H. S., mechanism of activation of catalytic surfaces, A., 28.
- chemical reactions of hydrogen atoms, A., 30.
- colloid particle as revealed by catalytic studies, A., 632.
- mechanism of "knock" suppression, B., 513.
- Taylor, H. S., and Bates, J. R., photosensitized decompositions by excited mercury atoms, A., 217.
- Taylor, H. S., and Kistiakowski, G. B., contact catalysis and the activation of gases by adsorption, A., 426.
- methyl alcohol catalysts. I., A., 1151.
- Taylor, H. S. See also Bates, J. R., Dew, W. A., and Kistiakowski, G. B.
- Taylor, J., Martin, C. de C., Naidu, J. V. R., and Naidu, P. N. R., comparison of the results of Clemesha's method and the test of citrate utilisation as applied to water supplies in Burma, B., 958.
- Taylor, James, photoelectric emissivity and sparking potentials, A., 1001.
- ionisation by collision and a "photo-electric theory" of the sparking potentials, A., 1001.
- Taylor, J. D. See Martin, G.
- Taylor, J. N., ethyl sulphate in the examination of hydrocarbon oils, B., 514.
- Taylor, J. R. See Phipps, T. E.
- Taylor, L., comparison of three spectrophotometric methods, A., 495.
- Taylor, L. B., spectrum of krypton in the extreme ultra-violet, A., 178.
- Taylor, L. B. See also Kent, N. A.
- Taylor, M. C., and Mathieson Alkali Works, Inc., manufacture of hypochlorites, (P.), B., 252.
- Taylor, M. C. See also Guyer, J. A.
- Taylor, P. B., E.M.F. of the cell with transference and theory of interdiffusion of electrolytes, A., 1144.
- Taylor, R. K. See Frazer, J. C. W.
- Taylor, R. S. See Keyes, F. G., and Smith, L. B.
- Taylor, T. C., and Wernitz, J. H., properties of corn [maize] starch; removal of combined fatty acids, B., 612.
- Taylor, T. W. J., and Ewbank, (Miss) E. K., metallic compounds of monoximes and the structure of oximes, A., 58.
- Taylor, T. W. J., Wignall, E. W., and Cowley, J. F., decomposition of nitrous acid in aqueous solution, A., 943.
- Taylor, T. W. J., and Woodhouse, G. P., condensation of 2-methyl-quinoline with *m*-nitrobenzaldehyde, A., 257.
- Taylor, W., actinic absorption of chlorine gas with respect to the hydrogen-chlorine reaction, A., 216.
- Taylor, W., and Elliott, A., residual effect in the actinic absorption of chlorine, A., 216.
- nature of the activating radiation in photochemical action, A., 1039.
- Taylor, W. A., hydrogen-ion control in ceramics, B., 442.
- Taylor, W. C., and Corning Glass Works, glass composition, (P.), B., 109.
- [translucent] glass composition, (P.), B., 253.
- Taylor, W. E. See Shoesmith, J. B.
- Taylor, W. H., and Shaw, C., apparatus for purifying and otherwise treating gases, (P.), B., 639.
- Taylor, W. H. See also Bogert, M. T.
- Taylor, W. L. See Eastman, W. H.
- Taylor Instrument Cos. See Tate, K. L.
- Tcherniac, J., separation and purification of vanillin, (P.), B., 428.
- Te Aroha Dairy Co., Ltd., and Murray, H. L., apparatus for deodorising fluids, (P.), B., 623.
- Te Aroha Dairy Co., Ltd. See also Murray, H. L.
- Teague, M. C., and American Rubber Co., thickening and stabilising latex, (P.), B., 565*.
- Teague, M. C. See also General Rubber Co.
- Technicolor Motion Picture Corporation, colour cinematography, (P.), B., 238.
- Technicolor Motion Picture Corporation, and Weaver, E. A., photography, (P.), B., 157, 174.
- Techno-Chemical Laboratories, Ltd. See Söderlund, O., and Testrup, N.
- Tede, K. See Schwarz, R.
- Tedesko, E., Spanish spike lavender oil; influence of steam-distillation, B., 267.
- Tefs, R., use of colloidal earth in oil and fat splitting in the manufacture of soap, B., 170.
- Teichmann, L. See Elöd, E.
- Teik, G. L. See Bishop, R. O., and Eaton, B. J.
- Teinturerie de la Rize, sizing for textiles, (P.), B., 699.
- Teisen, T., recuperative glass furnaces, B., 653.
- Teisler, E., production of aluminium fluoride, (P.), B., 778.
- Tekelenburg, F. See Kolthoff, I. M.
- Teller, S. V., calcium and phosphorus metabolism. IV. Influence of free fatty acids in the intestine on the absorption and excretion of the mineral elements. V. Infantile rickets; excretion and absorption of the mineral elements, and influence of fat in the diet on mineral metabolism, A., 896.
- Telkes, M., preparation of a stable colloidal solution of lead, A., 724.
- Tellera, G., acidity of urine, A., 987.
- preparation of dilute alcohol and liquids of definite alcoholic strength, and methods of determining alcohol, B., 90.
- solubility of alkaloids in oils, B., 124.
- Telles, A. C. da S., oil from seeds of *Bombax heptaphyllum*, B., 706.
- Telny, S. Y. See Evreinoff, G. E.
- Temme, T. See Ley, H.
- Tenbroeck, C. See Wu, S.
- Tendeloo, H. J. C., mean size of particles of colloidal solutions from Smoluchowski's formula, A., 511.
- Tendulkar, H. D. See Paranjpe, G. R.
- Tener, R. F., Smith, W. H., and Holt, W. L., ageing of soft rubber goods, B., 788.
- Tennessee Copper & Chemical Corporation. See Jones, E. M.
- Tenney, F. G. See Waksman, S. A.
- Teofil, E. See Garino, M.
- Tepohl, W. See Fischer, Ernst.
- Teppema, J., and Goodyear Tire & Rubber Co., vulcanisation of rubber, (P.), B., 789.
- Teppema, J., and Sebrell, L. B., thiolthiazoles. I., A., 887.
- thiolthiazoles. II. Nitration and reduction of 2-thiolbenz-thiazole and its substituted derivatives, A., 887.
- Terada, T., Tanaka, S., and Kusaba, S., thermo-electric phenomena with thin metallic films, A., 817.
- Terada, T., and Tsutui, T., thermo-electric and electro-thermal properties of single crystals of bismuth, A., 717.
- Terada, T., Yumoto, K., and Nakaya, U., combustion of mixtures of hydrogen with air or oxygen in a eudiometer, A., 1147.
- Terenin, A., optical excitation of the vapours of mercuric halides, A., 92.
- optical dissociation of metallic halides, A., 1009.
- Terenin, A. See also Ljalikov, K.
- Terentiev, A. P., condensation of benzaldehyde with organo-magnesium compounds, A., 152, 666*.
- reactions of active magnesium, A., 740.
- constitution of mixed magnesium organic compounds, A., 757*.
- Terentiev, A. P., and Rubinstein, A. M., nuclear carboxylation of aromatic amines, A., 1064.
- Terényi, A. See Bodnár, J.
- Tereschenko, A., and Necritche, M., determination of magnesium and calcium, A., 535.
- Terlinck, E., preparation of sulphur monochloride, (P.), B., 330.
- Ter Meulen, H. See Meulen, H. ter.
- Tern, R. See Continentale A.-G. für Chemie.
- Ter-Nedden, W. See Fischer, F.
- Terpstra, P. See Jaeger, F. M.
- Terrell, J. T. See Parker, J. G.
- Terres, E., and Hahn, E., Burkheiser ammonium sulphite-bisulphite process, B., 675.
- Terres, E., and Schmidt, Walter, physico-chemical principles of the recovery of ammonium sulphate from ammoniacal gases and sulphuric acid, B., 747.
- Terres, E., and Wolter, H., heat of coking of gas- and coking coals, B., 177.
- Terrey, H. See Miller, V. F.
- Terrisse, H., and Lévy, M., recovery of hydrochloric acid [in the manufacture of dextrose from wood waste], (P.), B., 793.
- Terroine, E. F., and Belin, P., characteristics of unvarying lipins, A., 371.

- Terroine, *E. F.*, and Bonnet, *R.*, energy of growth. X. Formation of fats from carbohydrates by micro-organisms, A., 797.
- Terroine, *E. F.*, Bonnet, *R.*, and Duquenois, *P.*, energy of growth. XI. Formation of carbohydrates from fatty acids by moulds, A., 797.
- Terroine, *E. F.*, Bonnet, *R.*, Kopp, *G.*, and Véhot, *J.*, physiological significance of the ethylenic linkings in fatty acids, A., 791.
- is the metabolism of sterols related to that of fats? A., 898.
- Terroine, *E. F.*, Lepage, *G.*, Véhot, *J.*, and Wolff, *A.*, determination of fatty matter in vegetable products, B., 258.
- Terroine, *E. F.*, and Matter, *H.*, quantitative law of minimal nitrogen usage, A., 276.
- Terroux, *F. R.*, electrical discharge in mixed gases, A., 82.
- Terry, (*Miss*) *E. M.*, and Stieglitz, *J.*, coefficient of hydrolysis of ethyl acetate by sodium hydroxide, A., 1036.
- Terry, *J. T.*, and Sheridan, *T. H.*, treatment of ores, (P.), B., 527.
- Terry, *R. E.*, *Ephedra nevadensis*, A., 799.
- Terwilliger, *C. O.*, and Briescu, *F. von*, manufacture of resins, (P.), B., 372*.
- Terzaghi, *C.*, mechanics of adsorption and swelling of gels, A., 622.
- Terzian, *H. G.* See Humphreys & Glasgow, Ltd.
- Tessier, *C. O.* See Stay, *T. D.*
- Testoni, *G.*, oxidising and auto-oxidising power of turpentine oil, B., 956.
- Testrup, *N.*, Boberg, *T.*, and Techno-Chemical Laboratories, Ltd., treatment for transport and/or utilisation of bituminous and like materials, (P.), B., 740.
- Testrup, *N.* See also Söderlund, *O.*
- Tetens, *O.* See Rekord-Zement-Industrie G.m.b.H.
- Tettenborn, *H.* See Heiduschka, *A.*
- Teufel, *H.*, moderately dilute sulphuric acid as a reagent for the examination of drugs, B., 378.
- Teupel, *E.*, production of cellulose ethers, (P.), B., 388.
- Tewari, *J. D.*, and Dutt, *S.*, dyes derived from glyoxalenedicarboxylic acid, A., 977.
- Texas Co., apparatus for removing [coke] deposits from stills and the like, (P.), B., 674.
- Texas Co., and Taveau, *R. de M.*, preparation of alkyl hydrogen sulphates, (P.), B., 378.
- Texas Co. See also Burlingham, *J. H.*, Dearborn, *R. J.*, Hadaway, *W. S., jun.*, Hall, *F. W.*, Holmes, *R. C.*, Manley, *F. T.*, Taveau, *R. de M.*, White, *G. D.*, and Wolcott, *E. R.*
- Texas Gulf Sulphur Co. See Schwab, *J. W.*
- Textor, *C. K.*, and Hoffman, *W. F.*, determination of soda by electrical conductivity, B., 408.
- Thal, *E. L.* See Avdejeva, *M. S.*
- Thaler, *E.* See Simon, *A.*
- Thalhimer, *W.*, Raine, *F.*, Perry, *M. C.*, and Butties, *J.*, effect of injections of dextrose and of insulin and dextrose on blood-sugar, A., 78.
- Thannhauser, *S. J.*, and Blanco, *G.*, nuclein metabolism. XV. Hydrolysis of thymus-nucleic acid with methyl-alcoholic hydrogen chloride. XVI. Action of human intestinal juices on thymus-nucleic acid, A., 268.
- Thannhauser, *S. J.* See also Enderlen, *E.*
- Tharaldsen, *C. E.*, and Krawetz, *J.*, blood reactions of the alkaloids of *Ceanothus americanus*, A., 376.
- Tharaldsen, *F.*, electric smelting [of zinc], (P.), B., 302.
- production of oxides, (P.), B., 409.
- Thatcher, *H. S.*, and Celite Co., manufacture of a filter aid, (P.), B., 768.
- Thauss, *A.* See I. G. Farbenind. A.-G., and Lieske, *R.*
- Thaysen, *A. C.*, and Bakes, *W. E.*, early stages of microbiological decay and humification of vegetable tissues, A., 907.
- Thaysen, *A. C.*, and Bunker, *H. J.*, examination of decayed papier maché fire buckets, B., 810.
- Thaysen, *A. C.*, and Green, *B. M.*, production of *n*-butyl alcohol and acetone from Jerusalem artichokes, B., 375.
- Theiler, *A.*, Green, *H. H.*, and Du Toit, *P. J.*, minimum mineral requirements in cattle, A., 899.
- Theis, *E.*, equilibrium between zinc vapour, carbon monoxide, and carbon dioxide, B., 78.
- Theis, *E. R.* See McLaughlin, *G. D.*
- Theisen, *E.*, apparatus for atomising liquids in rotating gas-purifiers, absorption plant, gas mixers, or coolers, etc. (P.), B., 241.
- Theisen, *F. H. E.* See Theisen, *L.*
- Theisen, *L.*, and Theisen, *F. H. E.*, centrifugal apparatus for treating gases with liquids, (P.), B., 736.
- Thelin, *L. W.* See Phillips, *A.*
- Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd., and Chadder, *W. J.*, fractional distillation, (P.), B., 433.
- Thermal Industrial & Chemical (T.I.C.) Research Co., Ltd. See also Duckham, *A. M.*, and Morgan, *J. S.*
- Thermatomic Carbon Co., and Spear, *E. B.*, synthesis of hydrocarbons, (P.), B., 961.
- Thermo Electric Battery Co. See Hermann, *O.*
- Thermokept Corporation. See Willison, *W. W.*
- Theunis, *M.*, action of organo-magnesium compounds on nitriles; α -chloronitriles, A., 653.
- Theurer, *H.*, flux for welding and soldering, (P.), B., 913.
- Thewlis, *J.* See Bradley, *A. J.*
- Thews, *K. B.*, and Colorado Vanadium Corporation, recovery of vanadium, (P.), B., 389.
- Thibaud, *J.*, various crystalline forms of long-chain organic compounds; difficulties in the interpretation of their X-ray spectra, A., 98.
- polymorphism of fatty acids, A., 191.
- vacuum grating spectrograph for the extreme ultra-violet and for X-rays: a grating with tangential incidence, A., 286.
- polymorphism of higher fatty acids, A., 645.
- spectrographic junction of the X-ray and ultra-violet regions with the aid of ruled gratings, A., 803.
- Thibaud, *J.*, and Soltan, *A.*, spectrographical measurements in the intermediate region (*K*., *L*., *M*., *N*-series), A., 1000.
- Thiel, *A.* (with Eckell, *J.*), corrosion of metals as an electrochemical problem, A., 1034.
- Thiel, *A.*, and Stampe, *G.*, production of highly-concentrated active hydrogen, (P.), B., 218.
- Thiele, *E. W.*, prediction of flash point of blends of lubricating oils, B., 355.
- Thiele, *E. W.*, and Haslam, *R. T.*, mechanism of the steam-carbon reactions, A., 944.
- Thiele, *H.* See I. G. Farbenind. A.-G.
- Thielmann, *H.* See Alberti, *E.*
- Thienemann, *H.* See I. G. Farbenind. A.-G.
- Thiess, *K.*, Müller, *C. J.*, Runne, *E.*, Schaeffer, *A.*, and Grasselli Dyestuff Corporation, manufacture of thioindigo vat dyes, (P.), B., 772.
- Thiess, *K.* See also I. G. Farbenind. A.-G., and Wagner, *H.*
- Thilo, *P.* See Hönigschmid, *O.*
- Thimann, *K. V.*, micro-determination of the Hausmann numbers of proteins, A., 66.
- Thimann, *T.* See Dieterle, *H.*
- Thivolle, *L.* See Fontès, *G.*
- Thönnessen, *E.*, influence of iodine on the conductivities of sodium, potassium, cadmium, and mercuric iodides in alcoholic and in acetone solutions, A., 420.
- Thois, *F. R.* See Müller, *Robert.*
- Thoma, *E.*, soldering articles, (P.), B., 726.
- Thomas, *A. R.* See Hughes, *A. L.*
- Thomas, *A. W.*, and Kelly, *M. W.*, destructive and preservative effects of neutral salts upon hide substance. II., B., 420.
- Thomas, *B.*, furnace for electrical treatment of gases for the purpose of oxidation of atmospheric nitrogen or for other purposes, (P.), B., 607.
- Thomas, *B. G. H.*, and Yant, *W. P.*, toxic effects of ethylene dibromide, A., 900.
- Thomas, *C. T.*, and Blum, *W.*, protective value of nickel plating. II., B., 681.
- Thomas, *D. L.*, process and apparatus for converting high-boiling oils or hydrocarbons into stable low-boiling oils or hydrocarbons, (P.), B., 100*.
- Thomas, *E. T.* See Schryver, *S. B.*
- Thomas, *F.* See Ruff, *O.*
- Thomas, *H.*, and Sun Oil Co., manufacture of gasoline, (P.), B., 578.
- Thomas, *H.* See also Pew, *A. E., jun.*
- Thomas, *J.*, Drescher, *H. A. E.*, and Scottish Dyes, Ltd., [manufacture of] dye intermediates, (P.), B., 648.
- Thomas, *J.* See also Drescher, *H. A. E.*, Harris, *J. E. G.*, Hooley, *L. J.*, Smith, *W.*, Thomson, *R. F.*, Wilson, *J. S.*, Woodcock, *W. G.*, and Wylam, *B.*
- Thomas, *J. B.*, and Howes, *C. C.*, ratio of sulphur trioxide to phosphoric anhydride [in acid phosphate], B., 408.
- Thomas, *J. C. A. S.*, quantitative stability test for smokeless powders, B., 830.
- Thomas, *L.* See Goldschmidt, *H.*

- Thomas, *L. H.*, kinematics of an electron with an axis, A., 85.
 calculation of atomic fields, A., 290.
 effect of the orbital velocity of the electrons in heavy atoms on their stopping power for α -particles, A., 606.
 production of characteristic X-rays by electronic impact, A., 911.
- Thomas, *M.* See Gehlhoff, *G.*
- Thomas, *P.*, and Mattei, *E.*, presence of acetaldehyde in cerebro-spinal fluid, A., 1215.
- Thomas, *P.*, and Sibi, (*Mlle.*) *M.*, structure of gels; crystallisation of *l*-arabinoxazone, A., 935.
- Thomas, *T. P.* See Marden, *J. W.*
- Thomas, *W. H.*, burning tests of kerosene, B., 643.
- Thomas & Co., Ltd., *R.*, and Davies, *T. F.*, tin-plate and sheet-mill furnace, (P.), B., 415.
- Thomas & Sons Co., *I. P.* See Wedge, *U.*
- Thomason, *R. W.* See Drew, *H. D. K.*
- Thomassen, *L.*, transmutation of elements, A., 606.
- Thompson, *C. E.*, method and apparatus for the disposal of exhaust gases, (P.), B., 133.
- Thompson, *C. H.*, manufacture of bricks, tiles, and other moulded articles made from sand and lime, (P.), B., 816.
- Thompson, *C. H.*, and McGivern, *W. J.*, manufacture of polish and waterproofing composition, (P.), B., 118.
 production of bitumen emulsion, (P.), B., 135.
- Thompson, *F. C.* See Atkin, *W. R.*
- Thompson, *F. S.*, and Vormelker, *H. I.*, mullito content of some American tank blocks, B., 581.
- Thompson, *H. L.*, acidity of wheat and flour, B., 589.
- Thompson, *H. W.* See Hinshelwood, *C. N.*
- Thompson, *J. A.*, and Hough, *W. S.*, treatment of nut kernels, (P.), B., 155.
- Thompson, *J. G.* See Krase, *H. J.*
- Thompson, *J. W.*, and Voegtlin, *C.*, glutathione content of normal animals, A., 71.
- Thompson, *J. W.* See also Voegtlin, *C.*
- Thompson, *N. J.*, spontaneous heating of oils; methods of testing, B., 339.
- Thompson, *P. K.*, Marsh, *M.*, and Drinker, *K. R.*, effect of zinc on the reproduction and growth of the albino rat; constant concentration of zinc in a given species regardless of age, A., 482.
- Thompson, *P. K.* See also Drinker, *K. R.*
- Thompson, *R. E.* See Howard, *N. J.*
- Thompson, *T. G.* See Smith, *E. V.*
- Thoms, *H.*, genetic relationship of aliphatic to cyclic perfumes; geraniol, A., 155.
 wormseed oil, B., 828.
- Thoms, *H.*, and Kross, *W.*, 2-tetralol; [derivatives of *ar*-tetrahydro- β -naphthol], A., 659.
- Thoms, *H.*, and Seebe, *H.*, condensations of *p*-dimethylamino-benzaldehyde with special reference to *p*-dimethylamino-benzylideneacetone and its reduction products, A., 153.
- Thomsen, *T. C.*, and Koefoed, Hauberg, Marstrand, & Helweg, Aktieselskabet Titan, centrifuge, (P.), B., 33*.
 centrifugal separator, (P.), B., 400*.
- Thomson, *E.*, and General Electric Co., manufacture of a fused quartz product, (P.), B., 109.
- Thomson, *E.* See also British Thomson-Houston Co., Ltd.
- Thomson, *G. P.*, scattering of positive rays by gases. II., A., 4.
 scattering-absorption of hydrogen positive rays on passage through hydrogen, A., 182.
- Thomson, *G. P.*, and Fraser, *R. G. J.*, process of quantisation, A., 710.
- Thomson, *G. P.*, and Reid, *A.*, diffraction of cathodo rays by a thin [celluloid] film, A., 605.
- Thomson, (*Sir*) *J. J.*, rate of unimolecular reactions, A., 212.
- Thomson, *J. L.*, and Kemp, *C. N.*, float-and-sink testing of small coal, B., 641.
- Thomson, *K.* See McLennan, *J. C.*
- Thomson, *L. R.* See McIntire, *C. V.*
- Thomson, *R. F.*, Thomas, *J.*, and Scottish Dyes, Ltd., dibenz-anthronyl product; dyestuffs and intermediates, (P.), B., 102*.
 manufacture of dyes and intermediates, (P.), B., 903.
- Thomson, *W. F.*, preparation and properties of the margarins, A., 540.
- Thomssen, *E. G.*, and Watkins Co., *J. R.*, product for dissolving essential oils, (P.), B., 60.
- Thon, *N.*, kinetics of the photochemical formation of hydrogen chloride, A., 323.
- Thon, *S.* See Rosenheim, *A.*
- Thoræus, *R.*, spectrographic junction between the X-ray region and the extreme ultra-violet, A., 83.
- Thorburn, *J.*, determination of carbon monoxide, hydrogen, and methane in air containing ethylene, applicable to the analysis of the products of explosion of blasting explosives, B., 803.
 gaseous products of explosion of blasting explosives, B., 830.
- Thorburn, (*Miss*) *M.* See McBain, *J. W.*
- Thorén, *F.*, temperature and activity of nickel catalysts. I. and II., A., 339.
- Thorin, *E. G.*, and Stockholms Superfosfat Fabr. Akt., apparatus for producing acetic acid from acetaldehyde, (P.), B., 59.
- Thormann, *K.* See Münster, *C.*
- Thorne, *C. B.*, process and apparatus for bleaching cellulose pulp and similar fibrous materials, (P.), B., 214.
 process for bleaching, (P.), B., 874.
 process for bleaching [wood pulp], (P.), B., 905.
- Thorne, *P. C. L.*, and Smith, *C. G.*, sols of barium sulphate in methyl alcohol, A., 933.
- Thorneycroft, *W. E.* See Friend, *J. N.*
- Thornley, *S.* See British Dyestuff Corporation, Ltd., and Robinson, *R.*
- Thornton, *J. E.*, kinematograph and other colour films, (P.), B., 715, 765, 798.
- Thornton, *W. M., jun.*, and Wood, *A. E.*, standardisation of titanous sulphate solutions, B., 187.
- Thorpe, *W. V.* See Best, *C. H.*
- Thorsen, *V.*, spectral series of bismuth, A., 179.
- Thoulet, *J.*, density measurements of the Tyrrhenian Sea, A., 335.
- Threlfall, *R.*, manufacture of activated carbon, (P.), B., 515.
- Threlfall, *R.*, King, *A. A.*, and Clarke, *J. G.*, producing smoke for forming smoke screens and like purposes, (P.), B., 482.
- Thrun, *W. E.* See Chamberlin, *D. S.*
- Thuaud, *F.*, detector metal, (P.), B., 195.
- Thuesen, *A.* See Goldschmidt, *H.*
- Thuminger, *L.* See Giua, *M.*
- Thurber, *F. H.*, and Roll, *L. G.*, [constituents of] Port Orford cedar wood oil, B., 733.
- Thurber, *F. H.* See also Glattfeld, *J. W. E.*
- Thuret, *A.* See Damour, *E.*
- Thyll, *R.*, and Schmid, *W.*, preparation of dinaphthylene dioxide [and vat dyes therefrom], (P.), B., 470.
- Thyssen & Co., Akt.-Ges., and Truschka, *R.*, dust separator for carbonisation gases, (P.), B., 245.
- Thyssen & Co., Akt.-Ges. See also Emmel, *K.*
- Tian, *A.*, improvement in Victor Meyer apparatus for measuring vapour densities, A., 128.
 equilibrium in a gaseous phase between acid and base: volatility product, A., 727.
- Tibyriçá, *L. W.*, chemical formulae of mineral compounds, A., 642.
 periodicity of molecular numbers, A., 1011.
- Tichomirova, *M. A.* See Efremov, *N. N.*
- Tideswell, *F. V.* See Francis, *W.*
- Tiede, *E.*, production of active charcoal from cacao refuse, (P.), B., 769.
- Tiedeman, *W. V. D.*, efficiency of chlorinating sewage tank effluents, B., 574.
- Tiedemann, *E.*, apparatus for vacuum sublimation, A., 37.
- Tiedje, *W.* See Meisel, *H.*
- Tiercy, *G.*, ionisation of gases and stellar temperatures, A., 708.
- Tiffany & Co. See Mitchell, *W. L.*
- Tiffeneau, *M.*, and Lévy, (*Mlle.*) *J.*, removal of the amino-group from aromatic amino-alcohols, A., 146.
 semipinacolic transformations; comparative stability of secondary and tertiary hydroxyl groups, A., 153.
 relative affinity of the *p*-tolyl radical, A., 769.
 stereoisomerism in trisubstituted α -glycols (phenyldialkylglycols and alkylhydrobenzoins), A., 1184.
- Tiffeneau, *M.*, and Orékhov, *A.*, effects exerted by atoms and groups of atoms on the reactivity of molecules and on the strength of linkings within the molecules, A., 129.
- Tiffeneau, *M.* See also Orékhov, *A.*
- Tilche, *E.*, production of metal nitrides, hydrides, etc., (P.), B., 440.
- Tilgner, *M.*, control of oils in newly-filled transformers, B., 132.
- Tilitscheev, *M.*, thermal decomposition of heterocyclic oxygen rings, A., 340.

- Tilitscheev, *M.* See Sachanov, *A.*
- Tillberg, *E. W.*, and Hellström, *S.*, manufacture of bricks and tiles, (P.), B., 909.
- Tilley, *F. W.*, and Schaffer, *J. M.*, relation between chemical constitution and germicidal activity of monohydric alcohols and phenols, A., 485.
- Tillmans, *J.*, and Alt, *A.*, colorimetric determination of tryptophan in proteins, A., 166.
- Tillmans, *J.*, Hirsch, *P.*, and Häffner, *F.*, physico-chemical processes involved in the removal of manganese from drinking water. I. Adsorption of bivalent manganese by manganese dioxide, B., 205.
- Tillmans, *J.*, Hirsch, *P.*, and Weintraud, *W.*, corrosion of iron in tap water, B., 843.
- Tillmans, *J.*, and Kiesgen, *J.*, determination of amino-acids in foodstuffs, B., 456.
- formaldehyde titration as a means of distinguishing artificial from natural foodstuffs, B., 456.
- Tillmetz, *F. P.* See Frankfurter Gas-Ges.
- Tillquist, *H. T.*, protective coating for electrical conductors, (P.), B., 727.
- Timm, *W. A.*, electric annealing of magnetic materials for telephone apparatus, B., 79.
- Timm, *W. B.*, and Parsons, *C. S.*, concentration of Canadian molybdenite ore, B., 192.
- Timmermans, *J.*, solidification temperatures of organic compounds; fusion temperature and spectrograms in homologous series, A., 10.
- freezing points. III. The synecrystallisation rule of Bruni, A., 417.
- f. p. [and b. p.] of organic compounds. X., A., 1131.
- Timochin, *G. G.* See Pavlov, *P. N.*
- Timofeev, *V.*, and Stachorski, *K.*, properties of mixtures of hexane and nitrobenzene, A., 1132.
- Timofejeva, *A.*, action of iodine and iodine preparations, thyroidectomy, and administration of thyroid gland on blood catalase *in vitro* and *in vivo*, A., 380.
- Tingley, *S. L.*, distilling and cracking hydrocarbon oils, (P.), B., 516.
- Tinker, *C.*, apparatus for drying material in bulk, or in stacks, (P.), B., 639.
- Tinker, *F.*, production of petrol, (P.), B., 549*.
- distillation of crude oils, (P.), B., 741.
- Tinolán Co. of America. See Schmitz, *W.*
- Tintner, *G. L.* See Hill, *C. B.*
- Tintometer, Ltd., and Lovibond, *F. E.*, colour estimating apparatus, (P.), B., 175.
- Tintometer, Ltd., Lovibond, *F. E.*, and Fawcett, *G. S.*, colour-estimating apparatus, (P.), B., 832.
- Tipper, *G. H.*, Merua meteorite, A., 956.
- Tipping, *A. H.* See Morton, *R. A.*
- Tirage & Ventilation Mécaniques, centrifugal separation of particles suspended in a fluid, (P.), B., 64.
- Tirelli, *M.*, amino-nitrogen in the egg of *Bombix mori*, A., 1108.
- Tiselius, *A.*, calculation of thermodynamic properties of colloidal solutions from measurements with the ultracentrifuge, A., 308.
- Titani, *T.*, viscosity of liquids above their b. p. I., II., III., and IV., A., 616, 819, 927, 1019.
- Titanium Alloy Manufacturing Co. See Kinzie, *C. J.*
- Titgen, *H. W.*, tumbling mill, (P.), B., 640.
- Titov, *P.* See Isgarischev, *N. A.*
- Titova, *A.* See Gavrilov, *N. I.*
- Tits, *D.*, action of amino-acids on the germination of *Phycomyces nitens*, Kunze and Schmidt, A., 382.
- Titus, *R. W.* See Hughes, *J. S.*
- Titz, *I.* See Zelinski, *N. D.*
- Tival, *H. L. P.*, preparation of products of organic origin, (P.), B., 734*.
- Tizard, *H. T.* See Fenning, *R. W.*
- Tobel, *G. zum.* See Weltzien, *W.*
- Tobler, *R.* See Society of Chemical Industry in Basle.
- Tocco, *L.*, and Landi, *M.*, production of ammonia and acetylene, (P.), B., 218.
- synthesis of ammonia, (P.), B., 814.
- continuous roasting furnace for zinc or lead ores, (P.), B., 912.
- rotary chemical furnace, (P.), B., 927.
- Tocco, *L.* See also Omnium des Industries Chimiques (Proc. Tocco & Landi).
- Toch, *M.*, rate of polymerisation of perilla oil, B., 49.
- Toch, *M.*, and Ling, *T. T.*, rate of polymerisation of perilla oil, B., 82.
- Tocher, *J. F.*, variations in the composition of milk, B., 57.
- Todd, *E. W.*, reversing p_{H} indicator, A., 637.
- Todd, *U. G.*, and Pfaudler Co., treating milk products, (P.), B., 314.
- Todd, *U. G.* See also Pfaudler Co.
- Todesco, *T.*, accidental thermo-electric effect in bismuth, A., 505.
- Tödt, *F.* See Spengler, *O.*
- Tödt, *F. W.*, and Sumpf, *P.*, conversion of mineral oils and the like of high boiling point into aliphatic hydrocarbons of low boiling point, (P.), B., 356.
- Toeldte, *W.*, analysis of rock-salt, B., 106.
- Toeldte, *W.* See also Wolff, *H.*
- Töller, *W.*, removal of gas from boiler-feed water, B., 590.
- Toennissen, *E.*, and Fischer, *W.*, methylglyoxal as a decomposition product of dextrose, A., 174.
- Töpler, *K.* See Sauerwald, *F.*
- Toledo Rex Spray Co. See Hedenburg, *O. F.*
- Tolkatchevskaya, *N. F.*, substances extracted from cows' milk, A., 692.
- Tolman, *C. P.*, method and apparatus for treating [cracking] hydrocarbons, (P.), B., 836.
- Tolman, *R. C.*, statistical mechanics and its application to physico-chemical problems, A., 500.
- Tolman, *R. C.*, Yost, *D. M.*, and Dickinson, *R. G.*, chemical activation by collisions, A., 604.
- Tolman, *R. C.* See also Wulf, *O. R.*
- Tomaschek, *R.*, emission from phosphors. I. Behaviour of samarium in sulphides and sulphates, A., 1125.
- Tomecko, *C. G.*, and Adams, *R.*, synthesis of θ -, ι -, κ -, λ -, and μ -hydroxystearic acids, A., 339.
- Tomihisa, *R.* See Kita, *G.*
- Tomioka, *S.*, paints for fishing nets, (P.), B., 259.
- Tomita, *M.*, and Sendju, *Y.*, aminohydroxy-compounds which show the biuret reaction. III. Separation of γ -amino- β -hydroxybutyric acid into optically active components, A., 1058.
- Tomlinson, *G. A.*, rusting of steel surfaces in contact, B., 604.
- Tonegutti, *M.*, Mayrhofer's method for testing the stability of nitroglycerin powders, B., 318.
- Toniolo, *C.*, absorption of nitrogen oxides from ammonia oxidation, B., 251.
- manufacture of nitric acid, (P.), B., 364, 365*.
- industrial absorption of nitrogen oxides in the synthetic nitric acid industry, B., 440.
- Toniolo, *C.* See also Azogeno S. A. per la Fabr. Dell'Ammoniaca Sintetica & Prod. Derivati.
- Tonomura, *T.* See Mitsukuri, *S.*
- Tonks, *L.*, and Langmuir, *I.*, surface heat of charging, A., 505.
- Toogood, *H. J.*, and Dempster, *R.*, & Sons, Ltd., manufacture of coal gas, (P.), B., 6.
- apparatus for use in the discharging of retorts, (P.), B., 68*.
- apparatus for removing and quenching hot coke discharged from retorts or furnaces, (P.), B., 674.
- gasworks retort settings, (P.), B., 696.
- [producer gas] furnaces, (P.), B., 835.
- Toogood, *H. J.* See also Carr, *W. M.*, and Dempster & Sons, Ltd., *R.*
- Toole, *F. J.* See Hatcher, *W. H.*
- Tootal Broadhurst Lee Co., Ltd., and Foulds, *R. P.*, production of pattern effects on acetyl [cellulose acetate] silk fabric, (P.), B., 185.
- production of pattern effects on fabrics, (P.), B., 214.
- Tooth, *L. F.*, metal melting furnaces, (P.), B., 115.
- Topham, *C. F.* See Courtaulds, Ltd.
- Topley, *B.*, size of the iodine molecule, A., 95.
- Topley, *B.* See also Hume, *J.*
- Toporescu, *E.*, the ammonia-soda process, B., 10.
- cracking of ozokerite, B., 98.
- Topping, *J.*, and Chapman, *S.*, form and energy of crystalline sodium nitrate, A., 96.
- Toquet, *L.* See Marquoyrol, *M.*
- Torii, *M.*, aluminosolder, (P.), B., 785.
- Tormin, *R.*, manufacture of fuel bricks, (P.), B., 162.
- production of [smelting charges of] coke and [iron] ore masses, (P.), B., 912.
- Torrance, *J. R.*, grinding mill, (P.), B., 511.
- Torulf, *H. G.*, means for sintering fine ores or pulverous ores, (P.), B., 225*.
- Toschevikova, *A.* See Ivanov, *N. N.*

- Tosi, *I. G.*, behaviour of the glycaemic curve in the child during a prolonged fast. I. and II., A., 1217.
- Tosterud, *M.*, and Edwards, *J. D.*, "discovery" of aluminium, A., 537.
- Tóth, *A.*, quantitative micro-method for the fractionation of serum-proteins by electrolysis, A., 1214.
- Totot-Gibaru, *C.*, enamelling of cast and sheet metal, (P.), B., 109.
- enamelling sheet iron, (P.), B., 779.
- Tottman, *H.*, solder for aluminium and its alloys, (P.), B., 448.
- Toundorf, *V.* See Scheid, *J. F.*
- Tourneau, *C.*, and Pernot, (*Mlle.*) *M.*, solubility; ternary systems of two salts in a volatile solvent, A., 406.
- Tourtellotte, *D.*, and Hart, *M. C.*, chemistry of the ovary. XI. Fat of ovarian residue, A., 168.
- Toussaint, *L.* See Schleicher, *A.*
- Toussaint, *R.*, industrial photo-colorimeter T.C.-B., independent of the eye, B., 735.
- Tovborg-Jensen, *S.* See Billmann, *E.*
- Towler, *W. T.*, and Marsh, *R.*, still or column for the distillation of ammonia, (P.), B., 601.
- Townend, *D. T. A.*, gaseous combustion at high pressures. VIII. Explosion of methane with up to its own volume of oxygen at initial pressures up to 150 atm., A., 1146.
- Townsend, *J. R.* See Honan, *E. M.*
- Toxopeus, *M.* See Backer, *H. J.*
- Toy, *F. C.*, relation between time and intensity in photographic exposure, B., 60.
- mechanism of formation of the latent photographic image, A., 1042.
- Toy, *F. C.*, Edgerton, *H. A.*, and Vick, *J. O. C.*, photo-electric activity of the silver halides and silver sulphide, A., 293.
- Toyama, *Y.*, fatty acids of whale oils. II. Fatty acids of long-headed finner (sei) whale oil, B., 82.
- fatty acids of whale oils. IV. Fatty acids of Californian grey whale oil, B., 83.
- Toyama, *Y.*, and Tsuchiya, *T.*, fatty acids of shark and ray liver oils. V. Fatty acids of aburatsunoame, B., 706.
- Trace, *L. H.* See Lampitt, *L. H.*
- Trachsler, *E. H.*, artificial silk, (P.), B., 185.
- Tracy, *E.* See McClendon, *J. F.*
- Tracy, *H. N.*, method of metallising ores, (P.), B., 527.
- Tracy Engineering Co., fluid separators, (P.), B., 241.
- Traegel, *A.* See Spengler, *O.*
- Traetta-Mosca, *F.*, pyruvic acid as an intermediate product of alcoholic fermentation, A., 379.
- Trails, *R. J.*, and McClelland, *W. R.*, reports of investigations: electrochemical and hydro-metallurgical laboratories; hydro-metallurgical treatment of iron sulphide ores for the production of electrolytic iron and of pyrrhotite of low gold and copper content; treatment of ilmenite for the recovery of electrolytic iron and titanium oxide, B., 282.
- Tramer, *E.* See Glaser, *E.*
- Transmutor Co. G.m.b.H., copper oxide electric cell, (P.), B., 583.
- Traube, *I.*, volumetric chemical observations on forces of aggregation, A., 1025.
- Traube, *J.*, adsorption effect of carbons, B., 664.
- Traube, *J.*, Schöning, *I.*, and Weber, *L. J.*, solubility and surface tension, A., 1022.
- Traube, *W.*, preparation of salts of chlorourethane, (P.), B., 348.
- Traube, *W.*, Burmeister, *E.*, and Blaser, *B.*, tetra-alkylammonium tetroxides and tetra-alkylammonium hydroxides, A., 342.
- Traube, *W.*, Kegel, *F.*, and Schulz, *H. E. P.*, sodium salts of cyanamide, A., 45.
- Traube, *W.*, and Lange, *W.*, [catalytic hydrogenation], A., 117.
- Traube, *W.*, and Wolff, *W.*, complex compound of biuret with copper and nickel, A., 232.
- Trautenberg, *H. R. von*, and Gebauer, *R.*, luminescence of canal rays, A., 1002.
- Traun, *H. O.* See Steppes, *F. E. K.*
- Traun & Söhne, *H.*, cement for articles made from artificial resins (particularly phenol-formaldehyde condensation products), (P.), B., 197.
- Traun & Söhne, *H.* See also Steppes, *F. E. K.*
- Trautluft, *R.* See Schaum, *K.*
- Trautmann, *J.*, vertical retort, (P.), B., 468.
- apparatus for heating substances in a finely-divided state, (P.), B., 831.
- Trautz, *M.*, friction, heat conductivity, and diffusion in gaseous mixtures. I., A., 194.
- Trautz, *M.*, electric differential method for measuring the specific heat *C_p* of gases, A., 817.
- Trautz, *M.*, and Triebel, *E.*, pykno-manometry; new method of determining vapour density, vapour pressure, and liquid density, A., 615.
- Travers, *A.*, the ionic equilibrium $\text{Al}(\text{OH})_3 + 6\text{F}^- \rightleftharpoons \text{AlF}_6 + 3\text{OH}^-$, A., 1141.
- Travers, *A.*, and Houot, allotropy of tin, A., 194.
- type metal and lead-tin alloys, B., 846.
- Travers, *A.*, and Joutot, iodometric determination of the antimonion, A., 334.
- Travers, *A.*, and Malaprade, molybdic acid and molybdates, A., 122.
- Travers, *M. W.*, heat of combustion of the carbon in coke, and reactivity of coke, B., 354.
- Travers, *M. W.*, and Clark, *F. W.*, process and apparatus for low-temperature distillation of coal, (P.), B., 5.
- manufacture of gas from coal and like carbonaceous materials, (P.), B., 770.
- Traxl, *W.*, recovery of precious metal [silver] from thiosulphate solutions, (P.), B., 621.
- preparation of stable colloidal silver solutions, (P.), B., 797.
- Traxler, *R. N.* See Germann, *F. E. E.*
- Traylor Engineering & Manufacturing Co., ball mills, (P.), B., 895.
- Treadwell, *W. D.*, and Zürcher, *M.*, electrotitration of platinum metals, A., 334.
- Treff, *W.*, critical inspection of the directions for the examination of essential oils and perfumes, B., 59.
- Trefiliev, *I.*, and Aisenberg, *A.*, oxonium derivatives of carbo-pyrotartaric acid, A., 543.
- Tréfouël, *J.* See Fourneau, *E.*
- Tréfouël, (*Mme.*) *J.* See Fourneau, *E.*
- Trefz, *F.* See Schmidt, *Erich.*
- Treibs, *A.*, spectrophotometric determination of pigments in the presence of coloured impurities, A., 392.
- Treibs, *A.* See also Fischer, *H.*
- Trelease, *H. M.* See Trelease, *S. F.*
- Trelease, *S. F.*, and Trelease, *H. M.*, relation of temperature to the physiological values of salt solutions as indicated by the growth of wheat roots, A., 704.
- Tremmel, *K.* See Eld, *E.*
- Trend, *E. W.* See Mount Lyell Mining & Railway Co., Ltd.
- Trendtel, *F.*, individual differences in the isoelectric point of the caseinogen of human milk, A., 372.
- Trénel, *M.*, do soil zeolites contain directly exchangeable hydrogen ions? B., 709.
- Trénel, *M.* See also Ganssen, *R.*
- Trent, *W. E.*, fuels from coal and oil mixtures, (P.), B., 66.
- carbonising processes, (P.), B., 99.
- treating carbonaceous materials, (P.), B., 99.
- combined process for carbonising coal and cracking oil, (P.), B., 100.
- Trent, *W. E.*, and Trent Process Corporation, producing enriched water gas, (P.), B., 6.
- process for converting or cracking hydrocarbon oils, (P.), B., 291.
- process of distilling oil in presence of comminuted carbonaceous fuel, (P.), B., 771*.
- prevention of [coal] mine explosions, (P.), B., 900.
- Trent Process Corporation. See Trent, *W. E.*
- Trenzen, *C.* See Schmelzbasalt-A.-G.
- Tressler, *D. K.*, and Larowe Construction Co., manufacture of betaine hydrochloride, (P.), B., 797.
- Tressler, (*Miss*) *K. M.*, and Dennis, *L. M.*, germanium. XX. Preparation of fused germanium directly from germanium dioxide, A., 1045.
- Treu, *A.* See Kindler, *K.*
- Treuheit, *L.*, and Treuheit, *L.*, testing moulds and mould materials, B., 222.
- Trevan, *J. W.*, error of determination of toxicity, A., 792.
- Trevithick, *H. P.*, and Dickhart, *W. H.*, soap colour test of sulphur olive oil, B., 585.
- Trickey, *J. P.*, solvent properties of furfuraldehyde and its derivatives, A., 721.
- Trickey, *J. P.*, and Quaker Oats Co., process of colouring materials, (P.), B., 452*.
- Triebel, *E.* See Trautz, *M.*
- Triebs, *A.* See Fischer, *H.*
- Trierer Walzwerk A.-G., applying a plating of aluminium alloy to iron and steel sheets and bands, (P.), B., 168.
- Trieschmann, *J. W.* See Bird, *E. B.*

- Trikojus, *M. T.* See Earl, *J. C.*
 Trikojus, *V. M.* See Newman, *R. K.*, and Perkin, *W. H., jun.*
 Trillat, *J. J.*, attribution to the secondary electrons of the action of X-rays on micro-organisms, A., 181.
 secondary action of X-rays on micro-organisms, A., 281.
 analytical interpretation of the X-ray spectra of fatty acids and their mixtures, A., 401.
 bactericidal action of X-rays, A., 795.
 applications of X-rays in metallurgy, B., 17*.
 Trimble, *H. C.* See Folin, *O.*
 Trimble, *H. M.*, coalescence of an unfilterable precipitate of barium sulphate, A., 435.
 Trist, *A. R.*, mercurial printing surfaces, (P.), B., 429.
 Trivelli, *A. P. H.*, mechanism of formation of the latent photographic image, A., 1154.
 Trivelli, *A. P. H.* See also Loveland, *R. P.*, Sheppard, *S. E.*, and Wightman, *E. P.*
 Trocknungs-, Verschwelungs-, & Vergasungs-G.m.b.H., annular rotary-hearth ovens, (P.), B., 897.
 Trocknungs-, Verschwelungs-, & Vergasungs-G.m.b.H., Honigmann, *L.*, and Bartling, *F.*, annular ovens or furnaces with rotating hearths for treating pulverulent, granular, or like materials, (P.), B., 544.
 [heat-insulated iron walls for] annular ovens or furnaces with rotary hearths, (P.), B., 801.
 Tröger, *J.*, and Bertram, *H.*, *o*-chloro- and *o*-bromo-benzene-azophthylhydrazinesulphonic acids, A., 142.
 Tröger, *J.*, and Bohnkamp, *J.*, syntheses of quinoline and quinazoline derivatives; attempts to synthesise eight-membered rings containing nitrogen, A., 1200.
 Tröger, *J.*, and Cohaus, *C.*, quinoline derivatives and condensation products from 6-amino-3-methoxybenzaldehyde, A., 1086.
 Tröger, *J.*, and Eicker, *C.*, constitution and derivatives of 4:6- and 2:6-dinitro-3-methoxybenzaldehyde, A., 768.
 Tröger, *J.*, and Krückeberg, *F.*, behaviour of 2-substituted 8-methoxy-3-arylsulphonylquinolines towards nascent hydrogen, A., 159.
 Tröger, *J.*, and Sabewa, *V.*, condensation of 2-amino-3-methoxybenzaldehyde, its acyl derivatives and quinazolines derived from them, A., 1089.
 Troensegaard, *N.*, and Schmidt, *Julius*, mol. wt. determinations of proteins in phenol, A., 785.
 Tröster, *A.* See Kremann, *R.*
 Trofimov, *A. V.*, combined fraction of soil solution; negative adsorption of electrolytes by soil, B., 887.
 Trofimuk, *N. A.*, differentiation between flours by means of iodine absorption and rate of sedimentation, B., 90.
 Trojan Powder Co. See Bredt, *O. P. C.*, Nellis, *E. L.*, and Snelling, *W. O.*
 Tronov, *B. V.*, activity of halogens in organic compounds and their characteristic behaviour, A., 957.
 Tronov, *B. V.*, and Kruger, *E. A.*, activity of fluorine in organic compounds, A., 957.
 Tronov, *B. V.*, and Popov, *P. P.*, polymerisation of pyrrole, A., 775.
 Troop, *R. S.*, some dryer considerations, B., 630.
 Tropseh, *H.* See Fischer, *F.*
 Trostler, *F.* See Chemische Fabrik Johannisthal G.m.b.H.
 Trotman, *S. R.*, testing dyestuffs for fastness to washing, B., 552.
 Troup, *J. D.*, gaseous or powdered fuel burner, (P.), B., 182*.
 Trouton, *M.* See Rustproof Processes, Ltd.
 Trowbridge, *C. C.*, pulverising machine, (P.), B., 159.
 Troy, *H. C.* See Dahlberg, *A. C.*
 Trümpler, *G.*, preparation of formaldehyde, (P.), B., 156.
 Truesdale, *R.* See Dunlop Rubber Co., Ltd.
 Truesdell, *A. C.*, and Doherty Research Co., lime kiln and method of burning lime, (P.), B., 444.
 Truffaut, *G.*, and Bezsonoff, *N.*, conditions for symbiosis of nitrogen-fixing bacteria and maize, A., 280.
 assimilation of phosphates measured by the bacterial fixation of nitrogen, B., 729.
 Trumble, *M. J.*, treatment of oil shales, (P.), B., 6.
 distillation of solid carbonaceous material, (P.), B., 548.
 Trumpy, *B.*, intensity and width of spectral lines, A., 179, 997.
 transition probabilities in the lithium atom, A., 998.
 Truog, *E.*, colloid chemistry of soils, B., 262.
 Truschka, *R.* See Thyssen & Co., Akt.-Ges.
 "Trust Uralkupfer." See Baraboshkin, *N.*
 Truszkowski, *R.*, purine metabolism. III. Basal metabolism and purine content. IV. The nuclear-plasmic ratio in dogs in carbohydrate and protein feeding and in starvation, A., 1108.
 Truttwin, *H.*, manufacture of metal iodide-alkali iodide compounds of therapeutic value, (P.), B., 461*.
 Tryhorn, *F. G.*, and Wyatt, *W. F.*, recording hydrostatic balance, A., 641.
 Tryller, *H.*, [phosphoric] acid in potato flour and syrup and its determination, B., 90.
 Trzeciak, *S.* See Bekier, *E.*
 Tschang, *K. T.* See Lindemann, *H.*
 Tscharny, *A. M.*, rôle of the lungs in intermediary nitrogenous metabolism. I. Total and residual nitrogen content of arterial blood and of blood from the right heart in the normal animal and after intravenous injections of serum, A., 1108.
 Tscharny, *A. M.* [with Krassovitzkaja, *S.*], rôle of the lungs in intermediary nitrogenous metabolism. II. Residual nitrogen content of the defibrinated blood flowing to and from the isolated lung, A., 1108.
 Tschelincev, *W.*, and Maxorov, *B.*, preparation and properties of pyrrole-1-carboxylic acid, its amide, pyrrolide, and glycine derivative, A., 254.
 Tschelincev, *V.*, and Nasarov, (*Mlle.*) *L.*, isolation of ketones by means of their oxonium compounds, A., 857.
 Tschepeljevetski, *M. L.* See Schilov, *N. A.*
 Tschermkes, *L. A.*, proteinogenous toxicosis, A., 481.
 Tscherniaev, *I. I.*, mononitrites of bivalent platinum. I, A., 1158.
 Tschesche, *R.* See Slotta, *K. H.*
 Tschibisov, *K.* See Uspenski, *A.*
 Tschirch, *A.*, protoretences, A., 669.
 Tschirch, *E.* See Stadlinger, *H.*
 Tschishov, *P.* See Myssovski, *L.*
 Tschitschibabin, *A. E.*, tautomerism of 2-aminopyridine. II., III., and IV., A., 255*.
 tautomerism of 2-aminopyridine. V. 2-Phenylpyriminazole and the preparation of the homologues of pyriminazole, A., 468.
 tautomerism in the pyridine series, A., 885.
 Tschitschibabin, *A. E.*, and Konovalova, *R. A.*, alkyl halides of 2-aminopyridine, A., 466.
 Tschitschibabin, *A. E.*, and Oparina, *M. P.*, condensation of crotonaldehyde with ammonia in the presence of aluminium oxide, A., 1086.
 condensation of acetaldehyde and paracetaldehyde with aniline in the presence of aluminium oxide as contact substance, A., 1086.
 Tschitschibabin, *A. E.* See also Kirsanov, *A. V.*
 Tschudi, *E. W.*, spectral intensity distribution in a hydrogen discharge, A., 997.
 Tschudi, *W.*, measurements with an absorptiometer of objective type, A., 1049.
 Tschudin, *W. F.* See Fichter, *F.*
 Tschugaev, *W. A.*, complex salts of iridium containing hydrazine, A., 1157.
 pentammine compounds of quadrivalent platinum, A., 1158.
 Tschugaev, *L. A.*, and Krasikov, *S. E.*, complex sulpho-acids of platinum, A., 1158.
 Tschukarev, *S. A.* See Joukov, *J. J.*
 Tschukanov, *S.*, combustion by means of a copper oxide spiral, A., 639.
 Tse, *E.*, value of egg-yolk in supplementing diets deficient in calcium, A., 176.
 Tsiang, *K.*, and Brown, *E. D.*, ephedrine: its isolation and detection from the toxicological point of view, A., 684.
 Tsou, *K.* See Gerngross, *O.*
 Tsuboi, *C.*, effect of temperature on the crystal structure of calcite, A., 400.
 Tsuchiya, *T.* See Toyama, *Y.*
 Tsujimoto, *M.*, hydrogenation of squalene, A., 1051.
 highly unsaturated acids of Japanese sardine oil, B., 18.
 detection of whale oil, B., 754.
 Tsukamoto, transparency of fused silica to ultra-violet radiations, A., 809.
 Tsunekawa, *S.*, rate of sedimentation of red blood cells and shifting in the plasma proteins in animals injected with India ink, A., 172.
 Tsurumi, *S.*, preparation of methyl *n*-alkyl ketones, A., 1172.
 Tsurumi, *S.* See also Nomura, *H.*
 Tsutui, *T.* See Terada, *T.*

Tubandt, C., and Haedicke, M., conduction of electricity by heavy metal sulphides, A., 402.

Tubandt, C., and Jost, W., interdiffusion of immiscible solid salts, A., 1020.

Tubandt, C., and Münzing, E., equilibrium between molten metals and salts, A., 418.

Tubandt, C., and Reinhold, H., mixed electrical conduction in solid compounds, A., 316.

Tubandt, C., Reinhold, H., and Jost, W., ionic mobilities in mixed crystals and their relationship to those in the pure salts, A., 1032.

Tubandt, C., Rindtorff, E., and Jost, W., continuous interchange between ionic and electronic conduction, A., 919.

Tubize Artificial Silk Co. of America. See Naef, E. E.

Tucker, C. W., photo-voltaic cells, A., 1035.

Tucker, G. R. See Moore, F. J.

Tucker, N. P., preparation of high-purity silicon, B., 444.

Tucker, S. H., dicarbazyls. I. Synthesis of 3:3'-dicarbazyl, A., 162.

Tucker, S. H. See also McIntock, J., and Maitland, P.

Türk, F. See Gronover, A.

Tufts, J. L., [centrifugal] separation of liquid mixtures, (P.), B., 433.

Tufts, W. P., effect of the method of sampling on the results of chemical analyses of horticultural plants, B., 951.

Tullis, D. R., purifying or refining aluminium and its alloys, (P.), B., 606, 848*.

Tullis, J. K., tanning material, (P.), B., 21.

process of tanning, (P.), B., 373.

Tully, S. J. B., and Yeo, O. E., manufacture of gas suitable for heating and lighting purposes, (P.), B., 548.

Tunison, B. R. See Leslie, E. H.

Tunnicliffe, H. E. See Dixon, M.

Tuorila, P., orthokinetic and perikinetic coagulation; theory of streaming coagulation and the coagulation theory of Smoluchowski and Müller; coagulation of colloidal and coarsely-dispersed systems and analysis by elutriation, A., 623.

Turbaba, W. See Balachovsky, S.

Turco, A. See Berlingozzi, S.

Turek, F. See Vincik, A.

Turk, R. H. See Wolfram, H. G.

Turnau, R., microscopical determination of husk content of cocoa powders, B., 794.

Turner, A. H. See Eddy, C. E.

Turner, A. J., and Sen, D. L., use of hydrocyanic acid gas for the fumigation of American cotton on import into India, B., 698.

Turner, E. E., and Le Fèvre, R. J. W., space formula of diphenyl, A., 139.

Turner, E. E. See also Evans, E. B., Le Fèvre, R. J. W., and Roberts, E.

Turner, F. B. See Martin, G.

Turner, L. A. See Kenty, C.

Turner, N. C. See Voress, C. L.

Turner, P. W., paints or compositions for protecting substances from the injurious effect of air, water, and other gases or liquids, (P.), B., 609.

Turner, T. H. See Everest, A. B.

Turner, W. E. S., some glasshouse tests to determine differences in the general characteristics and in the working properties of molten glass, B., 219.

Turner, W. E. S. See also Consen, A., Dimbleby, V., English, S., Firth, E. M., and Parkin, M.

Turova-Pollak, B. See Ilijinski, M. A.

Turrentine, J. W., some economic aspects of Texas potash, B., 250.

Turski, J. S., Bojanovski, J., Moniuszko, K., and Vogelgan, J., oxazinesulphonic acids, A., 263.

Tussenbroek, M. J. van, comparative examination of different colorimeters, A., 537.

Tussenbroek, M. J. van. See also Waterman, H. I.

Tuttle, A. E., and Blue Diamond Materials Co., apparatus for making plaster and mortar, (P.), B., 142.

Tuttle, C. See Silberstein, L.

Tutzky, P., bearing metal, (P.), B., 913.

Tuuk, J. H. van der, L X-ray spectra of the lighter elements, A., 286.

higher multiplets in X-ray spectra [of the rare earths], A., 999.

Tuve, M. A., source for resonance radiation, A., 84.

Tuyn, W., and Onnes, H. K., relative resistivity of metals at temperatures of liquid helium, A., 192.

disturbance of superconductivity by magnetic fields and by currents; the hypothesis of Silsbee, A., 716.

Twin Dry Cell Battery Co., Deibel, C. P., and Waitt, W. G., production of dry cells, (P.), B., 450.

Twiss, D., aliphatic polysulphides, A., 337.

Twiss, D. F., rubber solvents, B., 341.

Two-Tone Corporation, and Mijer, P., methods and apparatus for dyeing, coating, or colouring [textile] materials or other articles, (P.), B., 105.

methods and apparatus for treating textile materials, (P.), B., 105.

Twyman, F., Klein, A. B., and Sayer, H., manufacture of articles having surfaces capable of producing diffraction colour effects, (P.), B., 33.

Tykocinski-Tykociner, J., velocity selector for atomic rays, A., 605.

Tyler, A. G. See Wilkinson, H.

Tyler, R. G., Danielson, W. A., and Lebosquet, M., jun., head losses in the rapid sand filters at Cambridge, Mass., B., 126.

Typke, K. See Heyden, H. von der.

Tyrer, D. See Pease, E. L.

U

U. G. I. Contracting Co. See Fulweiler, W. H.

U. S. F. Powder Co. See Du Pont, F. I.

Ubbelohde, L., treatment of fibres for spinning, (P.), B., 519*.

Ubbelohde, L. See also Oberrheinische Handels Ges.m.b.H.

Ucko, H., and Bansl, H. W., peroxylase. IV. Influence of the substrate on the optimum p_{H} , A., 377.

Ucko, H. See also Bansl, H. W.

Ude, W. See Danckwortt, P. W.

Udylite Process Co., Young, A. W., and Louth, M. E., cadmium plating, (P.), B., 338.

Uebel, C., preparation of alkali sulphate and hydrochloric acid from alkali chloride, (P.), B., 480.

production of concentrated nitric acid, (P.), B., 876.

Uemura, T., and Tabei, S., spectrochemical studies of hydroxyazo-compounds. IV. and V., A., 1006, 1124.

Uemura, T., Yokojima, N., and Endo, T., spectrochemical studies of hydroxyazo-compounds. II. and III., A., 291, 396.

Uemura, T., Yokojima, N., and Tan, C., spectrochemical studies of hydroxyazo-compounds. I., A., 238.

Uhde, G. F., synthetic production of ammonia, (P.), B., 481, 521.

Uhlenbeck, G. E. See Goudsmit, S.

Uhlmann, F., evaluation of digitalis preparations, B., 617.

Uhlmann, P. W., blast-furnace process, B., 142.

Esthonian oil shale and its economic importance. I. and II., B., 899.

Ulček, A. See Schneider, J., jun.

Ulex, H., determination of sodium chloride in [preserved] yolk of egg, B., 857.

Ulich, H., ionic mobilities in non-aqueous solvents, A., 1032.

Ulich, L. H., Goodrich, R. J., and Newport Co., manufacture of N-dihydro-1:2:1':2'-anthraquinoneazine, (P.), B., 771.

Ullin, C. G., dry kiln, (P.), B., 767.

Ullmann, E., diffusion in solutions, A., 404.

Ullmann, E. See also Fürth, R.

Ullmann, G., prevention of hardness in soaping and washing operations, (P.), B., 30.

cleaning high-pressure boiling apparatus, (P.), B., 353.

Ulmann, M., electronic interpretation of the constitution of the boron hydrides and of compounds of boron, nitrogen, and hydrogen, A., 399.

Ulrich, F. See Zeche M. Stinnes.

Ulrich, J. See Walther, O. A.

Umbach, J., manufacture of artificial silk [from cotton rags], (P.), B., 904.

Umino, S., latent heats of fusion of metals and specific heats at high temperatures, A., 193.

heat of transformation of nickel and cobalt, A., 1018.

Umpleby, F., generation of gaseous fuel, (P.), B., 133.

gas generating apparatus, (P.), B., 435.

- Underwood, L. See *Ibbs, T. L.*
- Ungar, A., serum-calcium in vitamin-B deficiency, A., 382.
- Unger, G. See *Müller, Erich.*
- Unger, M., and General Electric Co., induction furnace, (P.), B., 450.
- apparatus for refining metals, (P.), B., 491.
- Unger, M. See also *British Thomson-Houston Co., Ltd.*
- Ungerer, E., formation of layers in clay suspensions, A., 201.
- preparation of solubility of magnesium phosphates compared with those of calcium and aluminium, and their utilisation by oats and barley, B., 55.
- difficultly soluble phosphates [in soil], B., 855.
- Union Akt.-Ges. für Metallind., centrifugal separator, (P.), B., 432.
- Union Carbide & Carbon Research Laboratories, Inc. See *Mardick, J. R., and St. John, A.*
- Union Française de Crédit, preparation of bituminous emulsions, (P.), B., 627.
- Union Générale Co-opérative, containers for storage and transport of gases, (P.), B., 66*.
- storing and transporting gases, (P.), B., 241.
- Union Sulphur Co. See *Wilkinson, H. H.*
- Union Switch & Signal Co. See *Zierdt, C. H.*
- United Engineering & Foundry Co. See *Walters, H. E.*
- United Glass Bottle Manufacturers, Ltd., and Moorshead, T. C., glass furnace, (P.), B., 411.
- United Iron Works, Inc. See *Brown, W. E.*
- United Products Corporation of America. See *Biddle, A.*
- United States. See *Goblentz, W. W., Freed, M. J., Jordan, L., Sale, J. W., and Webb, B. H.*
- United States, Bureau of Standards, U.S. Government master specification for turpentine (gum spirits of turpentine and steam-distilled wood turpentine), B., 50.
- U.S. Government master specification for plastic fire-clay refractories, B., 365.
- U.S. Government master specification for fire clay, B., 365.
- U.S. Government master specification for fire-clay brick, B., 365.
- U.S. Government master specification for soda ash, B., 553.
- U.S. Government master specification for caustic soda (lye, for cleaning purposes), B., 553.
- U.S. Government master specification for laundry soda (washing soda), B., 553.
- U.S. Government master specification for granular sodium carbonate (monohydrate crystals), B., 554.
- U.S. Government master specification for grit-cake soap, B., 585.
- U.S. Government master specification for turpentine (gum spirits of turpentine and steam-distilled wood turpentine), B., 586.
- U.S. Government master specification for water-resisting spar varnish, B., 586.
- United States Farm Feed Corporation, preparation of live-stock feeds, (P.), B., 954.
- United States Finishing Co. See *Witte, W.*
- United States Industrial Alcohol Co., distillation of alcohol, (P.), B., 922.
- United States Industrial Alcohol Co., and Arentz, F. B., process of esterification, (P.), B., 733.
- United States Industrial Alcohol Co. See also *Arentz, F. B., Baekhaus, A. A., Carter, R. M., Clapp, E. J., Cochrane, W. F., Hammond, J. A. S., and Mitchell, H. G.*
- United States Metals Refining Co., and Marks, A., magnesite refractory, (P.), B., 300*.
- manufacture of magnesite refractories, (P.), B., 878*.
- United States Metals Refining Co. See also *Marks, A.*
- United States Sand Paper Co., and Joseph, H., sheet abrasive material, (P.), B., 300.
- United States Smelting, Refining, & Mining Co. See *Colcord, F. F., and Kirsehom, G. N.*
- United Steel Companies, Ltd. See *Ellis, J. V.*
- United Yeast Co., Ltd., Salmon, W., and Jackson, F., preservation of liquid eggs or egg constituents, (P.), B., 503.
- Universal Oil Products Co. See *Dubbs, C. P., Egloff, G., Halle, H. J., Howard, W. R., Huff, L. C., Morrell, J. C., Pollock, R. T., and Seguy, J. D.*
- Universal Rubber Paviers (Manchester, 1923), Ltd., and Brown, A. E., bituminous mixtures for use in road construction, etc., (P.), B., 367.
- Universal Rubber Paviers (Manchester, 1923), Ltd., and Peachey, S. J., bituminous emulsions for use in making and surfacing roads, etc., (P.), B., 655.
- University of Tennessee. See *MacDonald, M. B.*
- Umrath, G., apparatus for washing refuse containing precious metal, (P.), B., 683.
- Unsöld, A., quantum mechanics of atoms, A., 291.
- quantum theory of molecular hydrogen ions and Born-Landé repulsive forces, A., 919.
- structure of Fraunhofer's lines and the dynamics of the sun's chromosphere, A., 1006.
- Untiedt, F. H., preparation of glycols, (P.), B., 923.
- Updegraff, H., Greenberg, D. M., and Clark, G. W., distribution of diffusible and non-diffusible calcium in blood-serum of normal animals, A., 167.
- Updike, I. A. See *Bogert, M. T.*
- Upjohn Co. See *Little, W. F.*
- Urano, S., and Imai, S., manufacture of basic calcium hypochlorites, (P.), B., 299.
- manufacture of pure calcium hypochlorite, (P.), B., 299.
- Urbain, E., manufacture of absorbent carbon, (P.), B., 467.
- active charcoal industry and the oxidation of phosphorus, B., 513.
- production of hydrogen and phosphoric acid, (P.), B., 937.
- Urbain, E., and Urbain Corporation, manufacture of highly active carbon, (P.), B., 162.
- Urbain, G., definition of an element according to the International Commission on chemical elements, A., 392.
- Urbain, G., and Sarkar, P. B., analogies of scandium with the rare-earth elements and with the tervalent elements of the iron family, A., 1010.
- Urbain Corporation, recovery of phosphorus and hydrogenated compounds thereof in the form of phosphoric acid, (P.), B., 748.
- Urbain Corporation. See also *Urbain, E.*
- Urban, H. See *Hägglund, E.*
- Urbana Coke Corporation, coking coal, (P.), B., 514.
- process and apparatus for coking coal, (P.), B., 515.
- Urbana Coke Corporation, Parr, S. W., and Layng, T. E., process and apparatus for coking coal, (P.), B., 35.
- apparatus for coking coal, (P.), B., 721.
- Urbanczyk, G., tensile properties of boiler plates at temperatures between 20° and 600°, B., 724.
- Urbaneck, L. See *Grón, J.*
- Urbanski, T., photographic studies on the detonation of explosives, B., 204.
- Ure, W. See *Archibald, E. H.*
- Urey, H. C., structure of the hydrogen molecule, A., 1005.
- structure of the hydrogen molecule ion, A., 1005.
- Urfer, C., catalyst for the synthesis of ammonia, (P.), B., 108*.
- Urk, A. T. van, Keesom, W. H., and Nijhoff, G. P., surface tension of liquid neon, A., 13.
- Urk, H. W. van, microchemical differentiation of morphine and some important derivatives, A., 579.
- Urquhart, A. R., moisture relations of cotton; absorption of water by cotton mercerised with and without tension, B., 293.
- Urquhart, A. R. See also *Swan, E.*
- Urtis, C., preparation of infusions of coffee, etc., (P.), B., 732.
- Urushibara, Y., so-called "diethyl dicyanoglutaconate" and some derivatives, A., 345, 1059.
- ethyl cyanoacetate [W. A. Noyes' method of preparation], A., 755.
- Usher, F. L. See *Achar, N. V.*
- Uspenski, A., and Tschibisov, K., spectrophotometric investigation of complex compounds and its application to analysis, A., 537.
- intramolecular rearrangements in the complex cobalt compounds, A., 1009.
- substitution reactions in the inner sphere of complex compounds, A., 1009.
- Ussanovitch, M., electrical conductivity of the system arsenious bromide-ethyl ether, A., 315, 734*.
- Utescher, K. See *Ganssen, R.*
- Uthe, H., determination of nitrogen compounds in industrial effluents, B., 206.
- Uthe, H. See also *Bach, H.*
- Utkin-Ljubovzov, L., blood proteases, A., 585.
- Utkin-Ljubovzov, X. See *Steppuhn, O.*
- Utterback, C. L. See *Mendenhall, C. E.*

- Utzino, *S.*, preparation of different-coloured gold sols by means of biological fluids, A., 201.
 Uyei, *N.*, vitamins and tubercle bacilli. I. and II., A., 903.
 Uzac, *R.*, industrial resins, B., 50.

V

- V. L. Oil Processes, Ltd. See Lucas, *O. D.*
 Vacek, *T.*, photo-oxidation of adrenaline, A., 763.
 Vachuska, *E. J.* See McDowell, *S. J.*
 Vacuum Casting Co. See Kadow, *A.*
 Vageler, *H.*, application of the Neubauer seedling method to tropical soils, B., 54.
 Vaglio, *V.* See Betti, *M.*
 Vaic, *B.* See Pushin, *N. A.*
 Vaidyanathan, *V. I.*, magnetic susceptibilities of gases at low pressures, A., 300.
 magnetic susceptibilities of vapours of organic liquids, A., 1131.
 Vaillant, *P.*, absorption of solutions of erythrosin and Knndt's rule, A., 508.
 maximum absorption and the Kundt displacement, A., 723.
 Vais, *M.*, identification of vat dyes on cotton, B., 775.
 Valasek, *J.*, relative intensities of some lines in the mercury spectrum, A., 706.
 piezo-electric effect in sodium bromate, A., 1130.
 Valasek, *L. M.*, transformation period of the initial positive air ion, A., 492.
 Valentin, *F.* See Votoček, *E.*
 Valentin, *H.*, and Lieber, *A.*, testing of aspirin and acetylsalicylic acid and a note on "Togal," B., 203.
 Valentine, *I. R.*, and General Electric Co., electric furnace, (P.), B., 493.
 Valentine, *W. G.* See Alling, *H. L.*
 Valentiner, *S.*, solubility of the rare gases in water, A., 508.
 Valentini, *R. A.*, characterisation of coal-tar dyes added to wine, B., 589.
 Valenzuela, *P.*, Philippine ginger, A., 387.
 Valet, *E. C. H.*, extraction of pure cellulose from the bagasse of sugar cane, (P.), B., 552, 839*.
 Valeur, *A.*, and Gailliot, *P.*, cacodylic acid from trimethylarsine, A., 756.
 oxidation of cacodyl oxide, A., 865.
 Cadet's oil. I. Preparation of cacodylic acid from trimethylarsine, A., 1176.
 high-boiling products of Cadet's oil, A., 1176.
 Valiaschko, *N. A.*, absorption spectra and the constitution of benzene derivatives. IX. Dihydroxybenzaldehydes; theory of auxochromes, A., 396, 608*.
 Valin. See Letourneur-Heigon.
 Vallance, *R. H.*, solubility of potassium ferrocyanide in water at temperatures up to 25°, A., 730.
 Valteau, *W. D.*, and Johnson, *E. M.*, relation of nitrates to tobacco frenching, A., 385.
 Vallée, concentration of lead in the body in lead poisoning, A., 992.
 Vallery, *L.*, stability of the catalytic properties of the palladium magnet, A., 945.
 Vallez, *H. A.*, filters, (P.), B., 863.
 Van Ackeren, *J.* See Koppers Co.
 Van Amringe, *E. V.* See Condon, *E.*
 Van Baerle & Co., Chemische Fabrik, production of silicate colours, (P.), B., 496.
 Van Brunt, *C.*, gas-tight bearing for rotating laboratory apparatus, A., 224.
 mercury and ammonia vapour an explosion hazard, A., 439.
 Van Brunt, *C.* See also Brophy, *D. H.*
 Vanderbilt Co., Inc., *R. T.* See Murrill, *P. I.*, and Somerville, *A. A.*
 Vandervort, *P.* See Moore, *F. C.*
 Vandevelde, *A. J. J.*, halogenated proteins. VI. Chlorocasein, A., 65.
 halogenated proteins. VII. Chlorofibrin, A., 474.
 halogenated proteins. VIII. Chlorogluten, A., 1212.
 Vandoni, stability of [per]chlorate explosives on storage, B., 716.
 Van Dusen, *M. S.* See Meyers, *C. H.*

- Vangelovitch, *M.*, bromination of anisaldehydephenylhydrazone. I., A., 768.
 Van Heuckeroth, *A. W.*, viscosity and mobility readings [of lacquer solutions] compared, B., 585.
 Van Heuckeroth, *A. W.* See also Gardner, *H. A.*
 Van Hoek, *C. P.*, physical constants and individual properties of cellulose lacquer solvents, thinners, and plasticisers, B., 84.
 Vanick, *J. S.*, deterioration of alloy steels in ammonia synthesis, B., 782.
 Vanick, *J. S.* See also Merica, *P. D.*, and Wickenden, *T. H.*
 Van Marle, *D. J.*, and Buffalo Foundry & Machine Co., Inc., drum dryer, (P.), B., 64.
 Van Nuys, *C. C.*, and Air Reduction Co., Inc., apparatus for liquefaction and separation of gaseous mixtures, (P.), B., 65.
 separation of the constituents of ternary gaseous mixtures, (P.), B., 65*.
 separation of the constituents of gaseous mixtures; liquefaction and separation of gaseous mixtures, (P.), B., 96.
 separation of the constituents of gaseous mixtures, (P.), B., 96, 160.
 liquefaction and rectification of gases, (P.), B., 96.
 Van Nuys, *C. C.*, Schlitt, *J. L.*, and Air Reduction Co., Inc., liquefaction of gases, (P.), B., 96.
 Vanscheidt, *A. A.*, coloured hydrocarbons. I., A., 140.
 coloured hydrocarbons. III. Synthesis of naphthalene derivatives of bifluorenyl, A., 140.
 coloured hydrocarbons. II. Synthesis of ketones, carbinols, hydrocarbons, and halogen derivatives of the fluorenes, A., 234.
 coloured hydrocarbons. IV. Dehydrogenation of the difluorenyls. V. Difluorenes and their hydrogen derivatives. VI. Absorption spectra of the difluorenes, A., 349.
 Van Slyke, *D. D.*, gasometric micro-Kjeldahl determination of nitrogen, A., 388.
 portable form of manometric gas apparatus, A., 800.
 determination of carbamide by gasometric measurement of the carbon dioxide formed by action of urease, A., 908.
 Van Slyke, *D. D.*, Hiller, *A.*, and Berthelsen, *K. C.*, gasometric micro-determination of iodate and sulphate; determination of total base in blood-serum, A., 1228.
 Van Slyke, *D. D.*, and Robschert-Robbins, *F. S.*, gasometric determination of small amounts of carbon monoxide in blood and determination of blood volume, A., 475.
 Van Slyke, *D. D.*, and Sendroy, *J. jun.*, carbon dioxide factors for manometric blood-gas apparatus, A., 880.
 Van Slyke, *D. D.* See also Hastings, *A. B.*
 Vanstone, *E.*, chemistry of basic slags, B., 729.
 Van Vleck, *J. H.*, quantum theory of the specific heat of hydrogen. I. Relation to the new mechanics, band spectra, and chemical constants, A., 87.
 dielectric constant and diamagnetism of hydrogen and helium in the new quantum mechanics, A., 188.
 theory of paramagnetism of oxygen and nitric oxide, A., 493.
 dielectric constants and magnetic susceptibilities in the new quantum mechanics. I. General proof of the Langevin-Debye formula, A., 609.
 dielectric constants and magnetic susceptibilities in the new quantum mechanics. II. Application to dielectric constants, A., 812.
 Van Voorhis, *C. C.*, heats of condensation of electrons and positive ions on molybdenum in gas discharges, A., 1001.
 Van Voorhis, *C. C.*, and Westinghouse Lamp Co., gaseous-discharge lamp, (P.), B., 943.
 Van Voorhis, *C. C.* See also Compton, *K. T.*
 Van Winkle, *C. C.* See Griesheimer, *E. M.*
 Vanzetti, *B. L.*, derivatives of veratrole and of methylvanillin. I., A., 462.
 Varga, *G.*, and Erdély, *A.*, products from the cracking of lignite producer tar oils and petroleum gas oils, B., 435.
 Varga, *J.*, sintered alumina cements from Hungarian bauxite, B., 908.
 Vargha, *L. von.* See Passu, *E.*
 Varley, *H.* See Fairbrother, *F.*
 Varma, *P. S.*, and Krishnamurthy, *P. V.*, nitration. II. Simultaneous diazotisation and nitration of aromatic amino-compounds, A., 552.
 Varma, *P. S.*, and Kulkarni, *D. A.*, halogenation. I. Iodination, A., 452.
 Varma, *P. S.*, and Menon, *C. K.*, nitration. III. Nitration of naphthalene, A., 454.

- Varma, P. S., and Panickar, K. G. R., halogenation. II. Direct iodination in the presence of sodium nitrite and fuming sulphuric acid, A., 452.
- Varnes, S. K., and Du Pont de Nemours & Co., E. I., recovery of glycerin from fermented molasses mash, (P.), B., 455.
- Vašatko, J., simultaneous adsorption of sucrose and colouring matters by carbons, B., 952.
- Vascautan, (Mlle.) E. See Cernatesco, R.
- Vascellari, G., and Pennati, V., action of the principal components of tobacco smoke on peptic digestion, A., 591.
- Vass, C. C. N. See Ingold, C. K.
- Vassiliev, G. See Kostytshev, S.
- Vassiliev, S., catalytic reduction of aliphatic oximes in presence of nickel at the atmospheric temperature, A., 648.
- Vastine Engineering Products Corporation, observation window for furnaces, (P.), B., 690.
- Vaubel, W., tertiary bromine-iodine values of drying oils, B., 49.
bromine-iodine values of butter and other edible fats, B., 455.
various bromine-iodine values of oils and fats, B., 883.
- Vaugeois, G., influence of the nature of the source on the liberation of radon, A., 86.
- Vaugeois, J. G., rendering liquids radioactive, (P.), B., 47.
- Vaughan, W. See Kriegsheim, H.
- Vaughn, M. See Mitchell, H. S.
- Vaupel, A. See Siemens-Schuckertwerke G.m.b.H.
- Vautin, C. T. J., and Whiffen, W. G., preservation of foodstuffs, etc., (P.), B., 763.
- Vavilov, S. J., dependence of the intensity of the fluorescence of dyes on the wave-length of the exciting light. II., A., 497.
- Vavilov, S. J., and Levschin, V. L., relation between fluorescence and phosphorescence in solid and in fluid media, A., 918.
- Vavon, G., catalytic hydrogenations in liquid media by platinum and palladium, A., 1165.
- Vavon, G., and Callier, A., *cis-trans*-isomerism and steric hindrance. IV. 2-*iso*Propylcyclohexanols, A., 455.
cis-trans-isomerism and steric hindrance. V. (I). 4-*iso*Propylcyclohexanols, A., 761.
- Vavon, G., and Coudere, A., catalytic hydrogenation of some cyclic ketones, A., 567.
- Vavon, G., and Jakes, M., catalytic hydrogenation of compounds with conjugated double linkings, A., 336.
- Vázquez, J. See Del Fresno, C.
- Vecchiotti, L., position occupied by acetatomercuric groups, Hg-OAc, in anilines having in the nucleus a halogen group or a hydrocarbon residue. I., A., 1098.
- Véhot, J. See Terroine, E. F.
- Vedder, E. B., and Lawson, W. E., solubilities of vitamin-C in lemon juice, A., 702.
- Vedenski, N., surface energy of some physiological fluids. I., A., 1104.
- Veen, A. G. van. See Dolk, H. E.
- Vegard, L., luminescence from solid nitrogen, and the auroral spectrum, A., 91.
[intensity changes of the lines of a mercury triplet], A., 179.
second green line of the auroral spectrum, A., 285.
grating deformation in precipitated mixed crystals, A., 815.
structure of xenotime and the relation between chemical constitution and crystal structure, A., 1014.
- Vegard, L., and Hauge, T., formation of mixed crystals by the contact of solid phases, and by precipitation from solution, A., 504.
- Vegard, L., and Keesom, W. H., luminescence produced by bombarding solidified gases with electric rays at the temperature of liquid helium, A., 1124.
- Vegesack, A. E. G. T. von, manufacture of steel and treatment of same for the manufacture of edge tools, (P.), B., 448, 848*.
- Veibel, S., identification and determination of aldehydes and ketones, A., 1172.
- Veil, (Mlle.) S., magnetic behaviour of "modified" hydroxides suspended in hydrogen peroxide, A., 614.
evolution of the hydrate of cobalt sesquioxide in contact with water, A., 614.
evolution of iron sulphide in contact with water, B., 105.
- Veillet, H. J., recovery of sulphur from minerals, (P.), B., 482.
- Veillon, R. A. See Roubaud, E. C. C.
- Veitch, F. P., and Jarrell, T. D., determination of moisture in leather; [American Leather Chemists' Association's Committee Report], B., 636.
- Veitch, W. W. See Parnall, J. B.
- Velaseo Durantez, M., variation of dielectric constants of certain organic substances with temperature, A., 1008.
- Velíšek, J. See Baborovsky, J.
- Vellinger, E., rotatory power of organic compounds as a function of the pH ; malic acid, A., 205.
rotatory power of tartaric acid, A., 500.
- Velluz, L., inhibitory action of fatty acids, particularly the unsaturated acids, on enzymic action, A., 699.
- Velluz, L. See also Sedallian, P.
- Velten, H., separation of matter of different specific gravities, (P.), B., 928.
- Vendelstein, G. G., influence of the sulphonic group on the isomeric naphthylaminesulphonic acids, A., 760.
- Venkateswaran, R. See Lunt, R. W.
- Venkateswaran, S., molecular scattering of light in aqueous solutions. I. and II., A., 713, 921.
compressibilities of aqueous solutions of some fatty acids, A., 1136.
- Venturi, M. See Mutti, I.
- Venturini, G. See Crippa, G. B.
- Venus-Danilova, (Mme.) E. See Danilov, S.
- Veraart, C. See Michels, A.
- Verein Chemische Fabrik zu Leopoldshall, Zweigstelle der Kaliwerke Aschersleben. See "Hera" Landsberger & Co.
- Verein für chemische & metallurgische Produktion, production of hydrochloric acid and magnesia, (P.), B., 364.
manufacture of hydrochloric acid and magnesia [from magnesium chloride], (P.), B., 480.
fungicidal and bactericidal agents, (P.), B., 499.
reactivating exhausted, pulverulent, decolorising charcoal, (P.), B., 594.
electrolytic decomposition of water, (P.), B., 786.
- Verein des Spiritus-Fabrikanten in Deutschland, manufacture of yeast extract free from bitterness, (P.), B., 857.
- Vereinigte Aluminium Werke A.-G., preparation of aluminium sulphate, free from iron, from alum, (P.), B., 907.
- Vereinigte Aluminium Werke A.-G. See also Fuss, V.
- Vereinigte Glanzstoff-Fabr. A.-G., process and apparatus for the production of artificial threads from cellulose derivatives, (P.), B., 184.
preparation of spinning baths for viscose, (P.), B., 675.
manufacture of fine viscose filaments, (P.), B., 675.
treating artificial silk produced in centrifuges, (P.), B., 745.
production of fine artificial silk filaments, (P.), B., 774.
- Vereinigte Glühlampen & Elektrizitäts-A.-G., [producing] single crystals of metals, e.g., tungsten, which are fusible with difficulty, (P.), B., 195.
- Vereinigte Mautner'sche Presshefe-Fabr. G.m.b.H., and Fould-Springer, E., manufacture of yeast, (P.), B., 953.
- Vereinigte Stahlwerke A.-G., production of pig iron and a slag suitable for direct use as a cement, (P.), B., 819.
- Verfürth, J., rapid determination of silicon in steel and iron, B., 255.
- Vergo Aluminium & Metallverwertungs-Ges.m.b.H., solders for aluminium and its alloys, (P.), B., 500.
- Verkade, P. E., oxidation of ricinoleic acid with nitric acid; conditions underlying the formation of suberic acid, A., 447.
- Verkade, P. E., and Coops, J., preparation of myristic acid from nutmeg butter and ucuhuba fat, A., 854.
- Verkade, P. E. See also Cohen, E.
- Verkentin, M. E. See Kukharensko, I. A.
- Verley, A., exchange of functional groups between two molecules, A., 856.
- Vermeire, M., decomposition of calcium cyanamide in the soil, B., 498.
- Vermeyen, E. J., furnaces, (P.), B., 239.
- Vermeylen, G. See Wahl, A.
- Vermorcken, O. See Dressler Tunnel Ovens, Ltd.
- Vernay, J. B., rotary drying apparatus, (P.), B., 719.
filtering apparatus, (P.), B., 801.
thickening filtering apparatus, (P.), B., 928.
- Vernon, A. A. See Hurd, C. D.
- Vernon, W. H. J., second experimental report to the Atmospheric Corrosion Research Committee (British Non-Ferrous Metals Research Association), B., 301.
- Verschaffelt, J. E., solidification of helium, A., 12.
relation between surface tension and temperature, A., 195.
electrolysis of water, A., 211.
specific heats of a highly-cooled non-condensed phase, A., 403.
heat expenditure at the absolute zero, A., 733.

- Verschaffelt, *J. E.*, absolute zero of entropy and internal energy, A., 936.
 physical significance of the second fundamental law of thermodynamics, A., 1027.
- Verschaffelt, *J. E.*, and De Block, *F.*, surface tension and heat of vaporisation, A., 108.
- Vershofen, *W.*, preparation of ceramic products, (P.), B., 443*.
- Versluys, *J.*, hypothesis explaining some characteristics of clay, B., 556.
- Vesely, *K.*, suction of acid fumes from fume-cupboards, B., 735.
- Vesely, *V.*, and Haas, *J.*, arylhydrazides of higher fatty acids, A., 959.
- Vesely, *V.*, and Rein, *E.*, reduction of aromatic nitro-derivatives by hydrogen in presence of platinum-black, A., 757.
- Vesta Battery Corporation. See Angell, *C. M.*
- Vesterberg, *R.*, betulin. II., A., 882.
- Vézes, *P. M.*, calculation of ionic equilibria, A., 515.
 ionic equilibria, A., 626.
- Vial, *F. K.*, Evans, *G. S.*, and Griffin Wheel Co., operating cupolas, (P.), B., 683.
- Vial, *I.* See Doyon, *M.*
- Viale, *G.*, endocrine factors in oxalic acid metabolism, A., 485.
- Vicars, Ltd., *T. & T.*, and Crosland, *E. M.*, ovens for baking, drying, and other heating operations, (P.), B., 639.
 [multiple-tier gas] ovens for baking, drying, and other heating operations, (P.), B., 600.
- Vichnitch, (*Mlle.*) *M.* See Chahovitch, *A.*
- Vick, *J. O. C.* See Toy, *F. C.*
- Vickers, *A. E. J.*, and Green, *A. T.*, trend of design in modern coke-oven construction and its bearing upon refractory materials, B., 130, 442.
- Vickers, *A. E. J.* See also Konarzewski, *J.*
- Vickers, Ltd., and Berger, *E. E. F.*, combustible compositions for pyrotechnic, smoke- and flame-producing, and other like purposes, (P.), B., 766.
- Vickers, Ltd., and Parker, *L. D.*, rotary kilns for burning cement, ore, or similar materials, (P.), B., 166.
- Vickery, *H. B.*, isolation of histidine, A., 344.
- Viekery, *H. B.*, and Leavenworth, *C. S.*, separation of arginine and histidine. II. Separation of silver compounds at pH 7.0, A., 546.
 separation of arginine and histidine. III. Preparation of arginine, A., 1175.
- Victor, precautions [against explosion] in preparing lead bromate, A., 1045.
- Victor Chemical Works. See Waggaman, *W. H.*
- Vidyarthi, *N. L.* See Hilditch, *T. P.*
- Vieille, hydration of colloidal [propulsive] powders during drying, B., 157.
 loss of volatile matters from colloidal [propulsive] powders, B., 158.
- Vierling, *K.* See I. G. Farbenind. A.-G.
- Vietinghoff, *K. von*, obtaining extractives from coffee [grounds], (P.), B., 426.
- Vietinghoff-Scheel, *K. von*. See Chemische Fabrik Johannisthal G.m.b.H.
- Vieweg, *K.* See Hahn, *F. L.*
- Vigevani, *E.* See Crippa, *G. B.*
- Vignal, *H.*, determination of hardness and alkalinity of water, B., 670.
 analysis of antimony alloys, B., 725.
- Vignati, *C.* See Courtot, *C.*
- Vignes, *H.*, and Coisset, calcium and halogen content of an organism during gestation, A., 372.
- Vigreux, *C.*, and Etablissements Poulenc Frères, apparatus for industrial culture of ferments, yeasts, microbes, etc., (P.), B., 589.
- Viktorov, *P. P.*, identity of digallie acid with tannin as mordants for basic dyes, B., 104.
 is digallie acid identical with tannin as a mordant for basic dyes? B., 746.
- Viktorov, *P. P.*, and Sirkin, *Z. N.*, identity of digallie acid with tannin as mordant for basic dyes, B., 812*.
- Vila, *A.*, and Ancelle, *R.*, determination of mineral matter in organic materials, A., 488.
- Vilella, *J. R.*, and Beregeko, *D.*, polishing and etching lead, tin, and some of their alloys for microscopical examination, A., 1049.
- Vilenski, *D. G.*, origin of alkali soils, B., 151.
- Viljoen, *J. A.* See Peterson, *W. H.*
- Villa, *V.*, manufacture of artificial indiarubber, (P.), B., 790.
- Villain, *P.*, manufacture of perfumed medicated transparent soaps, (P.), B., 451*.
- Villányi, *I.* See Bodnár, *J.*
- Villard, *P.*, chemical actions of radiations, A., 218, 323.
- Villars, *D. S.*, photolysis of potassium nitrate, A., 323.
 extinction coefficient measurements with diverging light, A., 402.
- Villey, *J.* See Grard, *C.*
- Vilsmeier, *A.*, and Haack, *A.*, action of phosphorus halide on alkylformanilides; preparation of secondary and tertiary p -alkylaminobenzaldehydes, A., 245.
- Vincent, *G. P.*, detergent action of soaps. II., B., 970.
- Vincent, *H.*, general properties of cryptotoxins; tetanus cryptotoxin, A., 175.
- Vincent, *H. B.* See Williams, *N. H.*
- Vincent, *M.*, cataphoresis in colloids, A., 625.
- Vincent, *V.*, measure of ionimetric acidity [hydrogen-ion concentration] by inversion of sucrose; application to complex media: soils, B., 422.
- Vincik, *A.*, and Turek, *F.*, evaporator for sugar juices, etc., (P.), B., 500.
- Vinet, *E.* See Moreau, *L.*
- Vineyard, *A. A.*, concentration of sludge acid, (P.), B., 841.
- Vinogradova, *E. N.* See Gorbatshev, *S. V.*
- Vinogradova, *I. V.* See Rutovski, *B. N.*
- Vinogradski, *S.*, decomposition of cellulose in the soil, B., 294.
- Vinson, *C. G.*, nitrogenous constituents of maize pollen, A., 1227.
- Virck, *P.* See I. G. Farbenind. A.-G.
- Virtanen, *A. I.*, insulin and co-enzyme. II., A., 78.
- Virtanen, *A. I.*, and Karström, *H.*, action of insulin on the sugar, phosphate, lactic acid, and glycogen contents of blood, A., 282.
- Virtanen, *A. I.*, Wichmann, *E.*, and Lindström, *B.*, lactic fermentation. IV., A., 700.
- Visco Engineering Co., Ltd., and Smith, *F. C.*, apparatus for treating air or gas with liquid, (P.), B., 512.
- Viscose Co. See McKenzie, *D. A.*, and Niederhauser, *F. C.*
- Viseur, *G.*, freezing of solutions. II. Crystallisation of maleic, fumaric, and succinic compounds, A., 312.
- Visscher, *M. B.*, and Müller, *E. A.*, influence of insulin on the mammalian heart, A., 380.
- Visscher, *M. B.* See also Burget, *G. E.*
- Vita, (*Signorina*) *N.* See Padoa, *M.*
- Viterbi, *E.*, ultra-violet absorption spectra of aqueous solutions of calcium, strontium, and barium chlorides, A., 1122.
 panchromatisation of photographic plates for use in the ordinary spectrum, B., 61.
- Vizern, and Guillot, detection of castor oil in fatty mixtures, B., 170.
 [soap] cakes obtained by the neutralisation of oils, B., 821.
- Vleck, See Ulček.
- Vleeschhouwer, *J. J.* See Kolthoff, *I. M.*
- Vlès, *F.*, optical properties of coloured substances which exhibit colour changes in concentrated solutions of neutral salts, A., 1023.
- Vlostovska, *V.* See Smolénski, *K.*
- Vnuk, *K.*, influence of filter-paper on the polarisation of sugar solutions, B., 395.
 Peligot's saccharine [$C_6H_{10}O_8$] and its isolation from [beet] molasses, B., 730.
- Vobach, *W.* See Janzen, *F.*
- Voegeli, *F. B.*, method and apparatus for treating textiles, (P.), B., 472.
- Voegtlin, *C.*, and Thompson, *J. W.*, glutathione content of tumour animals, A., 71.
- Voegtlin, *C.* See also Thompson, *J. W.*
- Vöhl, *M.* See Wintgen, *R.*
- Völker, *F.* See Madelung, *W.*
- Voellmy, *H.*, dispersion of ultra-violet rays by liquid organic substances, A., 812.
- Völtz, *W.*, and Kirsch, *W.*, detection of the antirachitic factor in grasses grown in the dark and under glass, A., 904.
- Voet, *R.*, γ -chloropropaldehyde dimethyl acetal, A., 1172.
- Vogel, *E.* See Nitzschmann, *R.*
- Vogel, *F.* See Speichert, *M.*
- Vogel, *H.*, and Bailey, *C. H.*, durum wheats, B., 590.
- Vogel, *H.* See also Faust, *O.*, and Pictet, *A.*
- Vogal, *H. E. R.*, production of physical and chemical changes in dielectric carbon compounds by means of ionised gases, (P.), B., 371*.

- Vogel, *I.*, ring-chain tautomerism. XVI. Effect of two adjacent gem-dimethyl groups on the ease of formation of the cyclopentane ring, A., 449.
- synthesis of cyclic compounds. I. Ethyl $\beta\gamma$ -dimethylbutanecarboxylate and some cyclobutane compounds derived therefrom, A., 959.
- Vogel, *I.* See also Ferguson, *A.*
- Vogel, *R.*, extraction of albumin and nutritive salts from the water of potatoes, (P.), B., 345.
- Vogel, *W.*, urunday and urunday [tannin] extract, B., 283.
- pigment finishes, B., 685.
- Vogelbusch, *W.*, concentrator for liquids, (P.), B., 959*.
- Vogelgarn, *J.* See Turski, *J. S.*
- Vogel-Jørgensen, *M.*, and Smith & Co., *F. L.*, treatment of cement raw materials in rotary kilns, (P.), B., 678*.
- Vogt, *C. C.*, Harsch, *J. W.*, and Smith & Son Manufacturing Co., *L. C.*, dental alloy, (P.), B., 169.
- Vogt, *E.* See Hasche, *L.*, and Müller, *K.*
- Vogt, *W. W.* See Bruson, *H. A.*
- Vohl & Co., *A.-G.*, A., production of waterproof materials from textiles, paper, and the like, by impregnation with metal chlorides, (P.), B., 362.
- Voigt, *B.*, temperature variation of the dielectric constants of glycerol and of aqueous solutions of sodium and potassium chlorides at γ 44.4 cm, A., 919.
- Voigt, *J.*, protected silver hydrosols. IV, A., 411.
- protected silver hydrosols. V. Reduction of silver nitrate solution by irradiation with ultra-violet light in the presence of protective colloids, A., 1024.
- Voigt, *J.*, and Heumann, *J.*, preparation of silver hydrosols free from protective colloids and with particles of a uniform size, I, A., 932.
- Voisin, *U. B.*, manufacture of spontaneously pulverised aluminous cements, (P.), B., 141.
- manufacture of aluminous cements in the revolving furnace, (P.), B., 484.
- Voit, *E.* See Firgau, *H.*
- Voit, *K.* See Stepp, *W.*
- Volbert, *F.* See Ley, *H.*, and Manecke, *W.*
- Volkman, *H.* See Winkler, *H.*
- Volkringer, *H.*, continuous spectrum of mercury, A., 2, 178.
- continuous and band spectra of mercury, A., 810.
- Vollenbruck, *O.* See Bauer, *O.*
- Vollmann, *H.*, plasticity and flow-determinations of paste paints, B., 496.
- Vollmann, *H.* See also I. G. Farbenind. A.-G.
- Volmar, and Samdahl, kirondrin, toxic principle from seeds of *Perriera madagascariensis* (*Simarubaceae*), A., 387.
- constitution of α -kirondrin, A., 464.
- Volmer, *M.*, lyophilic colloids, A., 308.
- Volwiler, *E. H.*, and Abbott Laboratories, ethyl-*n*-butylbarbituric acid derivatives, (P.), B., 380.
- barbituric acid derivative, (P.), B., 797.
- Vondracek, *R.*, calculation of the calorific value of fuels from their chemical composition, B., 179.
- Vondrák, *J.*, determination of amides in sugar factory products, B., 685.
- Vondrák, *J.* See also Staněk, *V.*
- Voorhies, *A.*, and Alvarado, *A. M.*, direct iodometric determination of dextrose, A., 891.
- Vorbrot, *W.*, phosphorus compounds of plants. IV. Phosphorus compounds of the mycelium of *Aspergillus niger*, A., 1228.
- Voress, *C. L.*, Turner, *N. C.*, and Gasoline Recovery Corporation, [hydrocarbon] vapour recovery, (P.), B., 273.
- Vorländer, *D.*, nature of the carbon chain in liquid crystal substances, A., 612.
- Vorländer, *D.*, and Fachmann, *W.*, esters of hexahydrophenylglycine-*o*-carboxylic acid, A., 561.
- Vorländer, *D.*, and Hempel, *H.*, isodimorphism of the alkaline-earth sulphates and alkali perchlorates, A., 503.
- Vorländer, *D.*, and Keesom, *W. H.*, crystallised nitrogen, A., 93*.
- Vorländer, *D.*, Zeh, *W.*, and Enderlein, *H.*, *s*-dibenzencarboethylenes, A., 553.
- Vormelker, *H. I.* See Thompson, *F. S.*
- Voronkov, *G. P.*, and Pokrovski, *G. I.*, optical properties of disperse mercuric sulphide, A., 1138.
- Voroshtov, *N. N.*, and Staatliche Vereinigte Anilinfabr., dyeing of vegetable fibre, (P.), B., 905.
- Vorster, *J.* See Meerwein, *H.*
- Vosburgh, *W. C.*, electrode equilibrium in the Weston standard cell, A., 209.
- cells of the standard-cell type with low *E.M.F.*, A., 1033.
- Vosnessenski, *S.*, *P. D.* between two liquid phases, A., 420.
- nitrogen sulphide, A., 741.
- Vosnessenski, *S.*, and Astachov, *K.*, thermodynamic *P. D.* at the boundary between two liquid phases. V., A., 1033.
- Voss, *A.* See Kränzlein, *G.*
- Voss, *J.* See Kalle & Co., *A.-G.*
- Voss, *W. A.*, composition of benzol from carburetted water-gas, B., 803.
- Vossen, *B.* See I. G. Farbenind. A.-G.
- Votoček, *E.*, and Rác, *F.*, detection of methylpentoses as methylfurfuraldehyde, A., 688.
- Votoček, *E.*, and Valentin, *F.*, optical enantiomeride of natural rhamnose, A., 341*.
- third component sugar of scammonine, A., 752.
- Vournazos, *A. C.*, azido mixed salts, A., 842.
- Vredenburg, *J. C.*, manufacture of [bead-decorated] threads, yarns, wire, cords, etc., (P.), B., 185*.
- Vredenburg, *J. C.* See also British Bead Printers, Ltd.
- Vrevski, *M. S.*, latent heat of vaporisation of pure liquids and of solutions, A., 733.
- Vrevski, *M. S.*, and Nikolski, *B. P.*, latent heat of vaporisation of water and of aqueous solutions of sulphuric acid at 79.3°, and comparison of the thermal effect with the energy of diluting the solution with water, A., 733.
- Vrklijan, *V. S.*, relation between coefficients of expansion and compressibility of liquids, A., 103.
- Vürtheim, *A.*, determination of perchlorate in Chile saltpetre with nitron, B., 250.
- Vulcan Detinning Co., and Lahey, *J. A.*, separation and recovery of arsenic and tin, (P.), B., 116*.
- Vulcan Detinning Co., and McIlhenney, *H. R.*, electrodeposition of tin, (P.), B., 881*.
- Vultex, Ltd. See Sehidrowitz, *P.*
- Vuylsteke, *L.*, reaction of organo-magnesium compounds with nitriles; dimethyleyanamide, A., 346.
- Vykypěl, *F.* See Schön, *V.*
- Vytopil, *Z.*, determination of the quality of activated carbons, B., 641.

W

- Wacek, *A.* See Suida, *H.*
- Wachholtz, *F.*, photochemical influence of bromine on ethyl malate and ethyl fumarate, A., 323.
- Wachholtz, *F.* See also Eggert, *J.*
- Wachtel, *W.*, apparatus for transforming gelatinic colloids into globules or pearls, (P.), B., 198.
- Wachtel, *W.*, and Aktien-Gesellschaft für Chemische Produkte vorm. *H. Scheidemandel*, obtaining solidified granules or pearls [of glue, etc.] from liquids, (P.), B., 758*.
- Wachter, *A.*, determination of excess of alkali in hypochlorite solutions, A., 436.
- Wacker, *L.*, acid rigor of glycogen-containing and alkaline (exhaustion) rigor of glycogen-poor muscles, A., 693.
- Wacker Ges. für elektrochemische Industrie m.b.H., A., Basel, *G.*, and Kauffler, *F.*, preparation of β -hydroxybutyric acid, (P.), B., 924.
- Wada, *H.*, snake (*Agristoden Blowhoffs*) venom, A., 586.
- Wada, *I.*, and Kato, *S.*, analysis of niobium and tungsten groups, A., 1162.
- Waddell, *J.* See Hart, *E. B.*
- Waddingham, *A. G.*, and Color Cinema Productions, Inc., colouring a photographic transparency, (P.), B., 621.
- Wadehn, *F.* See Glimm, *E.*
- Wadia, *J. H.*, pharmacological action of diaminoacetone, A., 1218.
- Wadsworth, *A.*, Maltaner, *F.*, and Maltaner, *E.*, chemical changes underlying the coagulation of the blood, A., 690.
- Wadsworth, *A. E.*, and Dawson, *H. M.*, systems sodium iodide-acetone and sodium iodide-methyl ethyl ketone, A., 22.
- Wadsworth, *G. H.* See Welton, *P. E.*
- Wadsworth Watch Case Co., photographic [photomechanical] processes, (P.), B., 61.
- photographic processes [involving synthetic resins from furfuraldehyde, pyrrole, and thiophen], (P.), B., 429.
- photographic process, (P.), B., 509.

- Wadsworth Watch Case Co., photographic media, (P.), B., 541.
 photographic process [using asphalt], (P.), B., 542.
 Wadsworth Watch Case Co. See also Beebe, M. C.
 Waelsch, H., hydrolysis of blood pigments by alkali, A., 893.
 Waelsch, H. See also Haurowitz, F.
 Waentig, P., determination of α -cellulose, B., 8.
 technical use of chlorine for the decomposition of raw vegetable fibres, B., 292, 598.
 viscosity of viscose solutions, B., 327.
 action of strong sodium hydroxide on cellulose, B., 773.
 Waerden, J. van der, Netherlands East Indian coals, B., 624.
 Wagel, S. R., and Lehigh Coal & Navigation Co., briquetting bituminous coal, (P.), B., 356.
 process for briquetting coal, (P.), B., 402.
 Wagenaar, M., continuous extraction, A., 128.
 micro-sublimation in a vacuum, A., 128.
 microchemical differentiation of maleic and fumaric acids, A., 133.
 microchemical reactions for citric acid, A., 647, 1213.
 microchemical reactions for thebaine, A., 684.
 microchemical reactions of codeine, A., 785.
 perforated extraction apparatus for heavy and light liquids, A., 850.
 microchemical reactions of papaverine, A., 1208.
 microchemical identification of morphine, A., 1210.
 microchemistry of narceine, B., 732.
 Waggaman, W. H., Easterwood, H. W., and Victor Chemical Works, production of phosphoric acid, (P.), B., 521.
 Waggaman, W. H. See also Brassett, H. A.
 Wagner, A., acetylene generator, (P.), B., 469.
 Wagner, C., iodometric analysis of peroxides, B., 249.
 Wagner, C. See also Täufel, K.
 Wagner, C. R. See McCollister, A. M.
 Wagner, F. H., and Bartlett Hayward Co., liquid and gas contact apparatus, (P.), B., 959.
 Wagner, H., evaluation of [water] paint adhesives, B., 19.
 Wagner, H., Brune, R., Hessenland, M., Hoffa, E., Müller, F., and Grasselli Dyestuff Corporation, vat dyes [of the thioindigo series], (P.), B., 212.
 Wagner, H., and Grasselli Dyestuff Corporation, manufacture of an azo-dye, (P.), B., 771.
 Wagner, H., Langbein, W., Beck, K., Thiess, K., and Grasselli Dyestuff Corporation, azo-dyestuffs and process of making same, (P.), B., 183*.
 Wagner, H. See also I. G. Farbenind. A.-G.
 Wagner, J. See Kubelka, V.
 Wagner, O. See Hepner, J.
 Wagner, T. See Remy, H.
 Wagner, T. B., and Glabau, C. A., production of leavened bread and other dough products, (P.), B., 154.
 Wagner-Jauregg, T. See Kuhn, R.
 Wagstaff, A. See Golding, J.
 Wahl, A., and Féricéan, disulphoisatide, A., 470.
 Wahl, A., and Vermeulen, G., new transformation of naphthylaminesulphonic acids, A., 352.
 new molecular transformation in the naphthylaminesulphonic acid series, A., 553.
 Wahl, A. See also Société Anonyme des Matières Colorantes et Produits Chimiques de St.-Denis.
 Wahl, R. See Chabanier, H.
 Wahl, W. [with Andersin, M.], optically active compounds of aluminium, A., 339.
 Wahlin, H. B., critical potentials of copper by electron impacts, A., 1000.
 Waibel, H., decomposition of tars or tar oils into pitch and oil without distillation, (P.), B., 696.
 Wait, G. R., magnetic permeability of iron and magnetite in high-frequency alternating fields, A., 505.
 Wait, J. F., and National Aniline & Chemical Co., Inc., production of sodamide, (P.), B., 907.
 Waitt, W. G. See Twin Dry Cell Battery Co.
 Wakamiya, K. See Nishida, K.
 Wake, J. F., manufacture of tarred macadam and the like, (P.), B., 334.
 Wakefield & Co., Ltd., C. C. See Evans, E. A.
 Wakeman, A. M., Eisenman, A. J., and Peters, J. P., permeability of human red blood-corpuscles, A., 786.
 Waksman, S. A., cellulose as a source of "humus" in the soil, A., 994.
 Waksman, S. A., origin and nature of soil "humus." V. Rôle of micro-organisms in the formation of "humus" in the soil, B., 170.
 process of making proteolytic enzymes, (P), B., 235.
 cellulose and its decomposition in the soil by micro-organisms, B., 856.
 Waksman, S. A., and Dubos, R. J., microbiological analysis of soils as an index of soil fertility. X. Catalytic power of soil, B., 170.
 Waksman, S. A., and Tenney, F. G., origin and nature of soil organic matter or soil "humus." IV. Decomposition of the various ingredients of straw and of alfalfa [lucerne] meal by mixed and pure cultures of micro-organisms, B., 22.
 composition of natural organic materials and their decomposition in the soil. I. Methods of determination of plant materials, B., 951.
 Walach, B. See Fischer, Hans.
 Waldbauer, L. J., and Patton, I. J., activated molecules, A., 1011.
 Walde, H. See Siemens & Halske A.-G.
 Walden, P., molecular diameters at the b. p., A., 95.
 association of liquids and a relation between the capillary constant and the heat of vaporisation, A., 194.
 Walden, P., and Werner, O., dielectric constants of solutions of electrolytes. III. Dielectric constants of solutions of salts in acetone, benzonitrile, *o*-nitrotoluene, and methyl cyanoacetate, A., 307.
 Waldman, C. See Zeller, O.
 Waldschmidt-Graser, J. See Waldschmidt-Leitz, E.
 Waldschmidt-Leitz, E., structure of proteins, A., 166.
 Waldschmidt-Leitz, E., and Deutsch, W., proteolytic enzymes of the spleen, A., 794.
 Waldschmidt-Leitz, E., Grassmann, W., and Schäffner, A., specific action of peptidases. I. Fission of amides of substituted amino-acids, A., 345.
 Waldschmidt-Leitz, E., Grassmann, W., and Schlatter, H., specificity of proteolytic enzymes, A., 1112.
 Waldschmidt-Leitz, E., and Kollman, T., enzymic hydrolysis of protamines, A., 698.
 Waldschmidt-Leitz, E., and Linderström-Lang, K., trypsin and enterokinase, A., 698.
 preparation of trypsin free from enterokinase, A., 698.
 Waldschmidt-Leitz, E., and Schäffner, A., analysis of proteins and the products of their degradation by adsorption, A., 785.
 Waldschmidt-Leitz, E., and Waldschmidt-Graser, J., enzymic activity of pancreatic and intestinal secretions, A., 698.
 Waldschmidt-Leitz, E. See also Willstätter, R.
 Walerstein, J. See McLennan, J. C.
 Wales, H., ethyl phthalate test, B., 58.
 Wales, H., Munch, J. C., and Schwartz, E. W., effect of certain dyes on blood *in vitro*, A., 1213.
 Wales, N. B., method of refrigeration, (P.), B., 176.
 Walker, A. C., Bray, U. B., and Johnston, J., equilibrium in solutions of alkali carbonates, A., 626.
 Walker, A. J. See Chataway, F. D.
 Walker, E. L., and Sweeney, M. A., chemotherapy of bacterial infections. II. Relation between chemical constitution and chemotherapeutic action in staphylococcal infections, A., 991.
 Walker, G. T., apparatus for crystallising liquids, (P.), B., 176.
 crystallisation of liquids, (P.), B., 896.
 Walker, H., manufacture of cellulose, (P.), B., 361.
 Walker, H. W., catalytic reactions of ethylene, A., 837.
 manufacture of arsenate insecticides, (P.), B., 567.
 Walker, H. W. See also Gehauf, B.
 Walker, J. C. See Born, S.
 Walker, J. H. See White, A. H.
 Walker, O. J. See Fairweather, D. A.
 Walker, T. K. See Challenger, F., and Hastings, J. J. H.
 Walker, Ltd., W & F., and Freestone, J. T., manufacture of disinfecting, deodorising, or sanitising substances, (P.), B., 542.
 Walker & Sons, Ltd., W. See Ross, H. C.
 Walkley, B. See India Rubber, Gutta Percha, & Telegraph Works Co., Ltd.
 Wallace, E. L., and Bowker, R. C., use of sulphite-cellulose extract as a tanning material, B., 534.
 Wallace, G. H. See Kiehl, S. J.
 Wallace, G. W., carbonising, distilling, and gasifying solid fuel, (P.), B., 804.
 manufacture of activated carbon, (P.), B., 805.
 Wallace, G. W. See also Davis, D. J. L.

- Wallace, *T.*, manuring of fruit trees. I. and II., B., 55.
 Wallace, *T.*, and Mann, *C. E. T.*, chlorosis of fruit trees. I. Composition of apple leaves in cases of lime-induced chlorosis, A., 176.
 Wallace, *W.*, and Oldbury Electro-Chemical Co., manufacture of oxalates and oxalic acid, (P.), B., 10.
 Wallen-Lawrence, *Z.* See Ronzoni, *E.*
 Waller, *I.*, transition from ordinary dispersion into Compton effect, A., 804.
 heat-motion of crystal atoms in relation to the intensity, position, and sharpness of X-ray spectral lines, A., 816.
 Wallerstein, *L.*, and Wallerstein Co., Inc., degumming of silk, (P.), B., 934.
 Wallerstein Co., Inc. See Wallerstein, *L.*
 Wallin, *J. H.*, destructive decomposition of organic substances, (P.), B., 134.
 Walls, *N. S.*, and Wheeler, *R. V.*, ignition of gases. VI. Ignition by flames; mixtures of the paraffins with air, B., 243.
 Wallwork, *J. A.* See Leitch & Co., Ltd., *J. W.*
 Walmsley, *G.*, ammonium sulphate; manufacture of household ammonia, B., 747.
 Walmsley, *H. P.*, conductivity of clouds dispersed from an arc. II., A., 287.
 Walrath, *J.* See Dustan, *F. P.*
 Walsh, *J. W. T.*, theory of luminescence in radioactive luminous compounds, A., 807.
 Walta, *Z.* See Chariton, *J.*
 Walter, *A.* See Pincussen, *L.*
 Walter, *C.* See Borsche, *W.*
 Walter, *E.* See Fischer, *Hans*, and Reindel, *F.*
 Walter, *H.* See Arndt, *K.*
 Walter, *K.* See Rippel, *A.*
 Walter, *M.* See Winterstein, *E.*
 Walter, *R.*, applying a metallic layer to another metal, (P.), B., 168.
 chemically resistant alloys [of iron, nickel, and copper], (P.), B., 337.
 Walters, *F. M.*, effect of carbon monoxide inhalation on metabolism, A., 480.
 Walters, *F. M.* See also Meggers, *W. F.*
 Walters, *H. E.*, and United Engineering & Foundry Co., chilled-iron roll, (P.), B., 605.
 Walters, *J. E.* See Loomis, *A. G.*
 Walters, *L. S.*, preparation of 2-hydrindone from coal tar, B., 359.
 Walters, *O. H.*, and Barratt, *S.*, line absorption spectra of the alkaline-earth elements, A., 601.
 Walther, *O.* See Mannich, *C.*
 Walther, *O. A.*, and Ulrich, *J.*, colorimetric micro-method for determination of ρ_H , A., 284.
 Walther, *T.* See Dede, *L.*
 Walti, *A.* See Levene, *P. A.*
 Walton, *G. P.*, and Gardiner, *R. F.*, cocoa by-products and their utilisation as fertiliser materials, B., 198.
 significance of solubility and "activity" of nitrogen in cocoa by-products, B., 313.
 Walton, *J. H.*, and Dittmar, *H. R.*, hydrolysis of corn [maize] starch by commercial pancreatin, A., 75.
 Walton, *S. F.*, manufacture of briquettes, (P.), B., 515.
 Waltzinger, *E.*, determination of benzoic acid in egg yolk, B., 122.
 determination of benzoic acid in minced meat, B., 539.
 Walz, *E.*, presence of kerosin in ox-spleen, A., 691.
 diaminomono-phosphate from ox-spleen, A., 691.
 Wang, *C.* See Orndorff, *W. R.*
 Wang, *L.* See Pfeiffer, *P.*
 Wang, *S.* See Diels, *O.*
 Wang, *S. C.*, configuration of a Lorentz electron moving arbitrarily along a straight line, A., 85.
 mutual influence of two hydrogen atoms, A., 1121.
 Wannebo, *K. N.*, manufacture of gas from oil or tar (hydrocarbons) or for cracking oil or tar, (P.), B., 468.
 Warburg, *E.*, and Rump, *W.*, formation of ammonia from its elements by the silent discharge in Siemens tubes, A., 215.
 Warburg, *E. J.*, plasma calcium-ion concentration, A., 67.
 Warburg, *O.*, [oxidising action of iodic acid and its restriction], A., 116.
 determination of copper and iron and the copper content of blood-serum, A., 985.
 action of carbon monoxide and nitric oxide on respiration and fermentation, A., 1221.
 metabolism of yeast, A., 1221.
 Warburg, *O.*, artificial preparation of natural mineral waters, (P.), B., 503, 858.
 Warburton, *G. H.*, apparatus for concentrating or solidifying liquids, pastes, etc., (P.), B., 832.
 Ward, *A. L.* See Essex, *H.*
 Ward, *A. M.*, Walden inversion. XI. Evidence for the bivalency of carbon from some reactions of α -chloroethylbenzene; $\alpha\alpha'$ -diphenyldiethyl ether, A., 453.
 bivalency of carbon. I. Displacement of chlorine from diphenylchloromethane; s -tetraphenyldimethyl ether, A., 1061.
 Ward, *C. J.*, main constituents and possible utilisation of primary tar, B., 135.
 Ward, *H. W. D.*, cadmium colours and their suggested application to the paint industry, B., 196.
 Ward, *J. T.*, and Hamblen, *J. B.*, influence of diffusion of oxygen on the rate of combustion of solid carbon, A., 1037.
 Ward, *J. T.* See also Haslam, *R. T.*
 Ward, *P. G.*, determination of calcium in aluminium alloys, B., 282.
 Ward, *W. J. V.* See Mills, *W. H.*
 Ward Baking Co. See Gregor, *N. M.*
 Wardlaw, *W.*, and Wormell, *R. L.*, isomerism of molybdenyl monochloride, A., 296.
 molybdenyl salts and the co-ordination number of oxygen, A., 636.
 Wardlaw, *W.* See also Bucknall, *W. R.*
 Ward-Love Pump Corporation. See Johnson, *O. W.*
 Wardner, *H. E.* See Binns, *C. F.*
 Ware, *A. H.*, test for nitrates applicable in presence of nitrites, A., 638.
 distinguishing tests for carbolic acid, the cresols, and certain other phenols, B., 596.
 detection of carbolic acid in commercial cresols, B., 596.
 Waring, *H.*, and Associated Lead Manufacturers, Ltd., manufacture of oxide of lead, (P.), B., 389.
 Warrington, *K.* See Brenchley, *W. E.*
 Wark, *J. W.*, metallic hydroxy-acid derivatives. IV. Complexes formed by copper with the monobasic monohydroxy-acids, A., 854.
 Warkany, *J.*, destruction of lactic acid by blood-cells, A., 690.
 determination of lactic acid in urine, A., 692.
 Warlimont, *F.*, preventing the evaporation and oxidation of heated electrolytes, (P.), B., 492.
 Warnat, See Schittenhelm, *A.*
 Warnat, *K.*, yohimba alkaloids. II., A., 681.
 Warner, *A. H.*, comparison of the thermionic and photo-electric work functions for clean tungsten, A., 391.
 Warner, *J. C.* See British Thomson-Houston Co., Ltd.
 Warner, *J. L.*, extraction of gold, (P.), B., 338.
 Warnock, *F. V.* See Smith, *J. H.*
 Warren, *A. I. G.*, and Precious Metal Industries, Ltd., production of metallised surfaces on bodies containing sulphur, (P.), B., 912.
 Warren, *B. E.*, electron lattice theory of metals, A., 1012.
 Warren, *E. C.* See Gillson, *J. L.*
 Warren, *H. R.*, and Warren Seed Cleaning Co., method and apparatus for separating seed and other bodies, (P.), B., 121.
 Warren, *L. E.*, determination of 2-phenylquinoline-4-carboxylic acid in tablets, B., 266.
 assay of podophyllum, B., 713.
 assay of sulphonal tablets, B., 955.
 Warren, *T. E.*, dissociation pressures of ammonium ortho-phosphates, A., 927.
 Warren Seed Cleaning Co. See Warren, *H. R.*
 Warriek, *L. F.*, lime in the treatment of pea cannery wastes, B., 510.
 Wartenberg, *H. von*, lecture experiments, A., 537.
 chromium-plating steel articles, B., 846.
 Wartenberg, *H. von*, and Aoyama, *S.*, reduction equilibrium of chromic oxide, A., 518.
 Wartenberg, *H. von*, and Moehl, *H.*, reduction of refractory oxides by tungsten at high temperatures, A., 1043.
 micro-pyrometer, A., 1048.
 Wartman, *F. S.* See Buehrer, *T. F.*
 Waschkau, *A.* See Gröppel, *K.*, and Schmid, *L.*
 Waser, *E.*, phenylalanine series. IX. Pharmacological action of hexahydrophenylalanine and hexahydrotyrosine, and of the related amine and its derivatives, A., 1109.

- Waser, E., and Fauser, H., phenylalanine series. VIII. Hexahydrotyramine, A., 555.
- Washburn, E. R., creeping of solutions, A., 931.
- Washburn, F. S., process for producing thiourea, (P.), B., 125.
- Washburne, R. N. See King, J. F.
- Washington, H. S., chemical composition of the earth, of meteorites, and of the atmosphere of the sun, A., 1050.
- Washington, T. P. K. See Dorgelo, H. B.
- Wassell, H. E. See Jackson, L. E.
- Wasserfuhr, R. See Rheinboldt, H.
- Wassermann, C. See Schmid, E.
- Wasteneys, H. See Goulding, A. M., McFarlane, J., and Morrell, C. A.
- Wastl, H. See Berczeller, L.
- Watanabe, I. See Fukushima, I.
- Watanabe, M., and Taslakowa, T., influence of feeding sodium chloride, bromide, and iodide on the urinary C:N ratio in rabbits, A., 72.
- Watanabe, S. See Tamura, K.
- Watchorn, E. See Holmes, B. E.
- Waterhouse, H. See Beckinsale, S.
- Waterman, H. C., determination of casein in milk by approximately isoelectric precipitation, B., 539.
inexpensive and accurate gas chain [hydrogen electrode vessel] for liquids lighter than saturated potassium chloride solution, B., 799.
- Waterman, H. C., and Lepper, H. A., determination of milk solids in food products. I. Direct method for milk proteins in cacao products, B., 425.
- Waterman, H. I., purification of juice in the cane sugar industry, B., 234.
- Waterman, H. I., and Aken, J. S. A. J. M. van, precipitation of sugar solutions with lime; Steffen process for manufacture of sugar from molasses, B., 919.
- Waterman, H. I., and Bertram, S. H., hydrogenation of oleic acid with active hydrogen, A., 1053.
refractivity and dispersivity of normal monobasic aliphatic acids, A., 1167.
"hydrogenation" of oleic acid with activated hydrogen, B., 227.
- Waterman, H. I., and Jamin, J. C., polymerisation. II, B., 131.
- Waterman, H. I., Nellensteyn, F. J., and Daamen, N. P. J., distillation of Java citronella oil in a high vacuum, B., 669.
- Waterman, H. I., and Nijholt, J. A., distillation of coconut oil at very low pressures, B., 494.
- Waterman, H. I., and Perquin, J. N. J., polymerisation. I, B., 131.
"berginisation" and an investigation of hydrocarbon mixtures. I, B., 643.
- Waterman, H. I., and Tussenbroek, M. J. van, desulphurising action of silica gel [on oils], B., 179.
- Waterman, N., and De Kromme, L., isolation of a substance with carcinolytic properties from the reticulo-endothelial system, A., 1215.
- Waterproofers (Moreton's Process), Ltd. See Moreton, C. J.
- Waters, W. A. See Scarborough, H. A.
- Watkins, G. See Neeley, G. S.
- Watkins, G. B., total carbon in coal determined by analysis of gas from bomb calorimeter, B., 802.
- Watkins, G. B., and Hunn, J. V., combustion tray for determination of heating value of coal, B., 802.
- Watkins, G. B. See also Brown, G. G.
- Watkins, H. R., and Palkin, S., errors in analysis of alkaloids caused by presence of fatty acid or soap, B., 315.
- Watkins, H. R. See also Palkin, S.
- Watkins, J. H., bacterial decomposition of sugars on a trickling filter, A., 593.
- Watkins, W. J., enclosed wort refrigeration, B., 200.
- Watkins Co., J. R. See Thomssen, E. G.
- Watson, A. F., and Langstaff, E., ammonium sulphate precipitation of the active principle of the culture filtrates of *C. Diphtheriae*, A., 485.
- Watson, E. C., space distribution of the photo-electrons ejected by X-rays, A., 913.
- Watson, E. R., Mukerjee, K. C., Gupta, D. N., and Chaturvedi, H. S., recovery of sucrose from cane-sugar molasses, B., 23.
- Watson, E. R., and Mulany, H. M., bleaching of shellac, B., 419.
- Watson, E. R., and Sen, H. D., manufacture of strychnine and brucine from *Nux vomica*, B., 427.
- Watson, E. R. See also Chaturvedi, H. S., and Mulany, H. M.
- Watson, H. B. See Orton, K. J. P.
- Watson, H. B. See Bhide, B. W., and Nargund, K. S.
- Watson, H. L., and General Electric Co., process and apparatus for the production of silica articles, (P.), B., 332.
- Watson, H. L. See also British Thomson-Houston Co., Ltd.
- Watson, J. C., and Gates, T. P., cross-dyeing cellulose fabric, (P.), B., 553.
- Watson, P. D., and Leighton, A., freezing points of cheeses, B., 954.
- Watson, R. See Forster, R. B.
- Watson, S. G. See Henshaw, D. M.
- Watson, W. See Martin, G.
- Watson, W. H. See Barkla, C. G.
- Watson, W. N. See Stevens, R. H.
- Watson, W. W., half-integral vibrational quantum numbers and rotational energy data for the MgH bands, A., 1005.
combination relation in the 3064 Å. OH band, A., 1122.
- Watson, W. W., and Rudnick, P., rotational terms in the MgH bands, A., 395.
- Watson, W. W. See also Frederickson, W. R.
- Watts, A. S., whiteware bodies developed at the Ohio State University, B., 778.
- Watts, A. S., King, R. M., and Fisk, H. G., substitution of calcined ball clay for non-plastic [materials] in porcelain and talc bodies, B., 220.
- Watts, G. See Blair, G. W. S., and Denham, H. J.
- Watts, O. P., anodes for chromium plating, B., 849.
- Waters, J., critical solution temperatures and butter analysis, B., 425.
- Waverley Oil Works Co. See Willock, H. H.
- Way, A. B., and Way, L. A., [demulsifying] treatment of hydrocarbons, (P.), B., 961.
- Way, L. A. See Way, A. B.
- Wayne, T. B., refining qualities of raw [cane] sugars, B., 536.
- Wayne Co. See Langston, R. E.
- Weatherby, B. B., and Wolf, A., dielectric constant of helium and oxygen in a magnetic field, A., 1126.
- Weatherby, B. B. See also Wolf, A.
- Weaver, E. A. See Technicolor Motion Picture Corporation.
- Weaver, E. R., and Shepherd, M., burette for the accurate measurement of gas volumes without gas connexion to a compensator, A., 1163.
- Weaver, J. B., and Oil Products Co., treating [cracking] hydrocarbon oils, (P.), B., 6.
- Weaver, J. B. See also Chemical Research Syndicate, Ltd.
- Webb, A. S., thermo-hydrometer, A., 1163.
analysis of nitroglycerin waste acid, B., 926.
- Webb, B. H., and United States, sterilisation of cream, (P.), B., 922.
- Webb, C. N. See Hurd, C. D.
- Webb, H. W. See White, D. R.
- Webel, F. See I. G. Farbenind. A.-G.
- Weber, A., Sommer, F., and Rapatz, F., non-corrosive steel, (P.), B., 256.
- Weber, F. W., production of mineral-tanned leather, (P.), B., 306.
purification of oils, (P.), B., 741.
treatment [tanning] of animal tissue, (P.), B., 917.
- Weber, F. W., and Maywood Chemical Works, treatment of animal tissue and products, (P.), B., 421.
- Weber, H. C. P., and Westinghouse Electric & Manufacturing Co., condensation product, (P.), B., 532*.
non-inflammable varnish, (P.), B., 788.
- Weber, H. C. P. See also Metropolitan-Vickers Electrical Co., Ltd.
- Weber, H. H., colloidal characteristics of muscle proteins. III. Physico-chemical constants for myogen, A., 1215.
- Weber, H. H., and Gesenius, H., proteases and proteolytic inhibitors, A., 992.
- Weber, H. M. See Ellis, C.
- Weber, J., and Claassen, H., manufacture of yeast, (P.), B., 501.
- Weber, J., and Krane, W., micro-determination of ammonia in urine, A., 478.
potassium, sodium, and calcium content of blood after ingestion of calcium chloride, A., 481.
- Weber, K., securing true average samples of milk, B., 794.
- Weber, L., production of coke briquettes with inorganic binding agents, (P.), B., 466.
- Weber, L. J. See Traube, J.
- Weber, O., influence of free chlorine on the elimination of manganese from water, B., 926.

- Weber, O. H. See I. G. Farbenind. A.-G.
- Weber, P., and Dunlap, H. L., apparatus for filtering saturated liquids at a constant temperature, A., 537.
- Weber, S., heat conductivity of gases, A., 403.
- Webster, D. L., direct and indirect production of characteristic X-rays, A., 803.
- Webster, G. E. See Edison Swan Electric Co., Ltd.
- Webster, H., kilns for burning clay products, glazed ware, and pottery, (P.), B., 524.
- Webster, T. A. See Rosenheim, O.
- Webster, W. L., longitudinal magneto-resistance effect in single crystals of iron, A., 11.
transverse magneto-resistance effect in single crystals of iron, A., 505.
Hall effect in single crystals of iron, A., 926.
- Wecker, E., process for separating volatile substances, (P.), B., 340*.
separation of substances of dissimilar volatilities [e.g., refining fats], (P.), B., 883.
- Weckerle, F., and Studienges. für Wirtschaft & Industrie m.b.H., electrical heating-body for high temperatures especially for ceramic, metallurgical, and chemical processes, (P.), B., 754*.
- Wedekind, E., and Fischer, Heinrich, behaviour of Prussian blue sol towards certain metallic hydroxides, A., 309.
behaviour of precipitated ferric hydroxide towards hydrocyanic acid; a case of differences in reaction connected with several stages of ageing in a metallic hydroxide, A., 328.
- Wedekind, E., and Jochem, O., preparation of compact and colloidal metallic molybdenum, B., 390.
- Wedge, U., and Thomas & Sons Co., I. P., production of phosphate fertiliser, (P.), B., 423.
- Weech, A. A. See Michaelis, L.
- Weed, J. M., and General Electric Co., induction furnace, (P.), B., 943.
- Weed Control Co. of California. See Hughes, H. E.
- Weerman, R. A., anti-knock dopes, B., 738.
- Wega m.b.H. Wärmetechnische Ges. Aachen, continuous analysis of gas currents by absorption of the absorbable constituents, (P.), B., 465.
- Wegner, C. See I. G. Farbenind. A.-G.
- Wegscheider, R., independent components and univariant systems, A., 112.
complete heterogeneous equilibrium, A., 1142.
- Wehrli, M., transition of glow into arc discharge in nitrogen, A., 989.
- Wehrli, W. See Karrer, P.
- Wehrmann, O. See Gehring, A.
- Weichherz, J., malt extract evaporation plant, B., 589.
- Weicker, H. G. See Winkler, M.
- Weidenhagen, R., constitution of disaccharides, A., 230.
- Weidenhagen, R. See also I. G. Farbenind. A.-G., and Spengler, O.
- Weidmann, H., and Allied Process Corporation, preparation of lithium carbonate, (P.), B., 555.
- Weidner, E., [perfumed] soaps, (P.), B., 258.
- Weiger, E., applications of Schrödinger's theory to the structure of spectra, A., 801.
- Weigl, A., Stark-Lundlund effect, A., 180.
- Weigle, J. J., lattice energy and the work of escape of electrons from calcium, A., 84.
- Weikel, J. H. See New Jersey Zinc Co.
- Weil, A., and Nagel, H. C., material for stimulating growth of hair, (P.), B., 173.
- Weil, R., influence of impurities on the temperature of paramorphic transformation of cristobalite, B., 12.
- Weil, S. [with Bomberg, (Mlle.), Slifski, J., Wierzicka, (Mlle.) C., and Wyszogrod, (Mlle.) Z.], some aryl amides, A., 240.
- Weil, V., colour photography, (P.), B., 126.
preparation of coloured images on paper, (P.), B., 957.
- Weiland, H. J. See Gubelmann, I.
- Weiler, G. See Hahn, F. L.
- Weill, P. See Lévy, (Mlle.) J.
- Weill, R. E. E. See Freyssingas, R. P.
- Weimarn, P. P. von, dispersion and aggregation of silk in concentrated salt solutions, A., 309.
mechanical methods for dispersion of cellulose, A., 410.
precipitated solids, especially strontium and calcium sulphates, A., 518.
dispersion of cellulose by salt solutions, A., 624.
dispersion of high-molecular compounds by very soluble, strongly hydrated substances, A., 725.
- Weimarn, P. P. von, precipitation laws, A., 1031.
conversion of fibroin, chitin, casein, and similar substances into the ropy-plastic state and colloidal solution, B., 136.
universal method for converting fibroin, chitin, casein, and similar substances into the ropy-plastic state, and into the state of colloidal solution by means of concentrated aqueous solutions of readily soluble salts, capable of strong hydration, B., 294*.
- Weimarn, P. P. von, Chên, T. L., Kida, Y., and Yasuda, K., disperse systems of lead iodide, lead bromide, and lead chloride, A., 933.
- Weimarn, P. P. von, and Hagiwara, T., non-existence of the amorphous state, A., 410.
- Weimarn, P. P. von, and Hori, H., dispersoidological investigations. XII. Cellulose dispersion in solutions of calcium iodide, A., 824.
- Weimarn, P. P. von, and Juna, K., dispersoidological investigations. XIII. Cellulose dispersion in solutions of strontium iodide. XV. Cellulose dispersion in solutions of potassium, sodium, and lithium iodides, A., 824.
- Weimarn, P. P. von, and Katoka, S., dispersoidological investigations. XIV. Cellulose dispersion in solutions of barium iodide, A., 824.
- Weimarn, P. P. von, and Yoneda, T., dispersoidological investigations. XVI. Cellulose dispersion in solutions of lithium bromide, A., 824.
- Weinand, C. See I. G. Farbenind. A.-G.
- Weindel, A., sulphur balance in coking practice, B., 321.
causes of discoloration of ammonium sulphate produced at coking plants, B., 363.
apparatus for determining the content of solvent vapours in gases, particularly of benzene hydrocarbons and gas benzene from the carbonisation of coal, B., 435.
- Weindel, A. See also Gewerkschaft M. Stinnes, Still, C., and Zeche M. Stinnes.
- Weingand, R. See Czapek, E., and Wolff & Co.
- Weingerov, W., number of dispersion centres in saturated sodium vapour, A., 1126.
- Weinig, A. J., and Palmer, I. A., trend of flotation, B., 192.
- Weinland, R., Effinger, K., and Beck, V., pyridine compounds of salts of bivalent heavy metals, A., 673.
- Weinland, R., and Hager, K., compounds of sexavalent uranium with aromatic hydroxy-acids, A., 358.
- Weinstock, Z. See Gaus, R.
- Weintraud, W. See Tillmans, J.
- Weir, J. G. See Weir, Ltd., G. & J.
- Weir, J. W., refining mineral lubricating oils, (P.), B., 7.
- Weir, Ltd., G. & J., and Weir, J. G., multiple-effect distilling apparatus, (P.), B., 2.
- Weis, E. See Serravallo, F.
- Weise, C. See Guttman, A.
- Weise, K. See D'Ans, J.
- Weiser, H. B., antagonistic actions of ions in the neutralisation of sols. II., A., 18.
- Weiser, H. B., and Garrison, A. D., rôle of water in the photochemical decomposition of zinc sulphide, A., 841.
- Weiser, H. B., and Porter, E. E., physical chemistry of colour lake formation. I. General principles; [adsorption of anions and hydrogen-ion concentration], A., 1021.
- Weiser, S., and Zaitschek, A., biochemistry of iodine, A., 989.
- Weiser, W. H., process of hardening copper, (P.), B., 784.
- Weiss, J. M., volatility of acetone-benzene paint and varnish removers, B., 418.
- Weiss, M. L., and Dovan Chemical Corporation, vulcanising rubber, (P.), B., 305.
- Weiss, P., atomic moment in the complexes of the iron family, A., 288.
- Weiss, R., and Fastmann, P., arylbenzylidenephthalans and naphthalans; disubstituted indones, A., 465.
- Weiss, R., and Knapp, W., triphenylmethane compounds with linked benzene nuclei. III. Derivatives of diketo-5-phenyl-acridine, A., 258.
- Weiss, R., and Luft, S., derivatives of 1:3-diphenylhydrindene, A., 970.
- Weiss, R., Spitzer, A., and Melzer, J. L., triphenylmethane compounds with linked benzene nuclei. II. Triketotrimethylene-triphenylmethanedicarboxylic acids, A., 57.
- Weiss, R., and Woldich, K., condensation of esters of ethoxymethylene- β -ketonic acids with resacetophenone and their relation to xanthophanic acid, A., 250.

- Weiss, R. See also Gutmacher, M. S.
 Weiss, S., and Hatcher, R. A., [pharmacology of] quinine, A., 376.
 [pharmacology of] quinidine, A., 376.
 Weiss, S. See also Hollö, J.
 Weissberger, A., influence of temperature on neutral salt action, A., 520.
 Weissberger, A. See Hantzseh, A.
 Weissenberg, K., theoretical and experimental foundations for a general stereochemistry, A., 9.
 Weissenberger, G., binary liquid mixtures. XXV., A., 112.
 solubility of naphthalene, B., 596.
 recovery of volatile materials by condensation, B., 623.
 Weissenberger, G., and Fränkel, S., adsorption by carbon in viscous media, A., 198.
 Weissenberger, G., and Hadwiger, H., absorption of sulphur dioxide by organic liquids, B., 617.
 Weissenberger, G., and Henke, R., binary liquid mixtures. XXIV., A., 111.
 Weissgerber, R., and Seidler, C., fission of the heterocyclic compounds of coal tar, A., 1198.
 Weissmann, G., electric cell, (P.), B., 371.
 Weitz, E., and Schwechten, H. W., free ammonium radicals. VIII. Ammonium character of tri- and di-arylamines, A., 351.
 free ammonium radicals. VII. The ammonium character of triarylamines, A., 49.
 free ammonium radicals. IX. Ammonium character of the tetra-arylhydrazines, A., 658.
 Weitzenkorn, J. W., and Molybdenum Corporation, steel alloy [for hot working], (P.), B., 15.
 Weitzenkorn, J. W., and Molybdenum Corporation of America, steel alloy, (P.), B., 390.
 Weitzmann, N. J. H. See Andersen, F. J. E.
 Weizel, W., and Fichtbauer, C., nuclear vibration in the band spectrum of helium, A., 909.
 Welch, G. B., periodicity of photo-electric thresholds, A., 492.
 photo-electric threshold for germanium, A., 603.
 Welch, L. E., artificial stone or marble. (P.), B., 444.
 Welde, F., action of acids and alkalis on fuller's earth, B., 127.
 Weller, A., colour of selenium dioxide, A., 432.
 Weller, D. R., Link, L., and Standard Development Co., [fractional] distillation of oils, (P.), B., 163.
 Weller, H. O. See Broadway Trust Co., Ltd.
 Welles, H. C., treatment of [soft] sugar, (P.), B., 538.
 Wellington, S. N. See Woodall-Duckham (1920), Ltd.
 Wellman, F. E., and Kansas City Gasoline Co., cracking of [hydrocarbon] oils, (P.), B., 273.
 Wellman Seaver Rolling Mill Co., Ltd., and Smith, S., apparatus for pickling tubes, bars, etc., (P.), B., 848.
 Wells, F. B. See Gannon, J. J.
 Wells, F. E. See Wells, W. C.
 Wells, H. G., Lewis, J. H., and Jones, D. B., immunological reactions of the globulins from the seeds of leguminous plants; biological reactions of the vegetable proteins. IX., A., 800.
 Wells, H. G. See also Lewes, J. H.
 Wells, R. C., mosandrum, A., 1049.
 Wells, S. D., cooking vegetable fibre, (P.), B., 438.
 Wells, W. C., and Wells, F. E., conversion [cracking] of the components of petroleum and the like into more volatile products, (P.), B., 770.
 Welo, L. A., and Baudisch, O., precipitated magnetite, with particular reference to hysteresis, A., 300.
 Welsbach, A. von. See Hönigschmid, O.
 Welter, A., manufacture of fatty acids, (P.), B., 118*.
 production of soap, (P.), B., 946.
 Welter, G. See Czochralski, J.
 Welton, P. E., Wadsworth, G. H., and Welton Engineering Co., P. E., briquetting of fuel, (P.), B., 901*.
 Welton Engineering Co., P. E. See Welton, P. E.
 Weltz, E. H. See Pratt, L. S.
 Weltzien, W., determination and significance of the solubility of artificial silks in alkali, B., 773.
 Weltzien, W., and Tobel, G. zum, oxidation of alkali-cellulose by gaseous oxygen, B., 962.
 Welz, C. J. See Rhodes, F. H.
 Wemme, A. See Steinkopf, W.
 Wendel, F., determination of amylase in the mash, B., 152.
 difficulties of the sulphuric acid treatment [of distillery mashes], B., 375.
 Wendel, G. See Brand, K.
 Wendt, G. L. See Rogers, F. M.
 Wenger, F. See Anschütz, L.
 Wenger, P., and Rogovine, (Mlle.) E., separation of iron, chromium, nickel, manganese, tungsten, and silicon, A., 333.
 analysis of cassiterite, SnO₂, B., 301.
 Weniger, A., compressed fuel for heating and cooking purposes, (P.), B., 210.
 Weniger, J. See Klages, A.
 Wenner, W. F., prevention of tetany by magnesium lactate, A., 988.
 prevention of tetany by oral administration of ammonium chloride, A., 1107.
 Wennerlöf, I., exact determinations of the L-series of tantalum, A., 286.
 Wennstrom, H. E., inorganic solvents for cellulose, B., 962.
 Wentworth, C. K., accuracy of mechanical analysis, B., 431.
 Wentz, G. See Long, J. S.
 Wentzel, G., theory of the Compton effect. I. and II., A., 603, 804.
 radiationless quantum changes, A., 807.
 Wenzl, H., decomposition of raw vegetable fibres by chlorine, B., 69, 292, 598.
 bleaching of wood cellulose. IV. Influence of metals and salts on hypochlorites and the bleaching process, B., 810.
 Wenzl, H. See also I. G. Farbenind. A.-G., and Paweck, H.
 Wenzl, M., and Morawe, F., temperature measurements in liquid iron and steel, B., 631.
 Werede, T., electric double refraction of benzopurpurin, A., 398.
 electrolytic preparation of colloidal silver halides, A., 410.
 Werner, A., solder for fixing in position lead-bearing metal containing alkali or alkaline-earth metals, (P.), B., 632.
 Werner, E. A., and Bailey, K. C., colour produced by the action of light on concentrated solutions of ammonium thiocyanate, A., 29.
 Werner, F. See Stratmann & Werner.
 Werner, Felicitas. See Kurtenacker, A.
 Werner, G. See Berl, E.
 Werner, H., stability of coarse particles in solutions. I., A., 620.
 stability of coarse particles in solutions. II. Determination of colloids with the aid of the rate of clarification, A., 1023.
 Werner, H. See also Holluta, J.
 Werner, O. See Siemens & Halske A.-G., and Walden, P.
 Werner, S., hydrogen bands in the ultra-violet Lyman region, A., 1.
 Wernick, S., chromium plating and resistance to corrosion, B., 703.
 Wernicke, R., and Dortzenbach, I., oligodynamic action of metallic silver, A., 992.
 Wernicke, R., and Modern, F., reactions of colloidal gold with electrolysed serum-albumin, A., 201*.
 Wernitz, J. H. See Taylor, T. C.
 Werschen-Weissenfeller Braunkohlen A.-G., and Fürth, A., apparatus for cracking mineral oils, (P.), B., 695.
 apparatus for cracking mineral oils and the like, (P.), B., 961.
 Werschen-Weissenfeller Braunkohlen A.-G., Fürth, A., and Hildenbrand, G., hydrogenation of organic compounds, (P.), B., 924.
 Wertauf, M. von, and Caplan, S., eliminating carbon monoxide in the exhaust of internal-combustion engines, (P.), B., 515.
 Wertheimer, E., transformation of the theoretical chemical constants, A., 102.
 relation between temperature and energy of a gas. II., A., 1132.
 Werz, W. See Roesch, K.
 Wescott, B., and Rubber Latex Research Corporation, batting process [for fibres], (P.), B., 905*.
 Wescott, B. B., Eckert, F. E., and Einert, H. E., determination of slag and oxides in wrought iron, B., 939.
 Wescott, W. B., treatment of latex; centrifugal machine, (P.), B., 610*.
 Wesener, J. A., process of treating grain and product produced thereby, (P.), B., 236.
 Wesley, W. A. See Taylor, H. A.
 Wessely, F., and John, M., anhydrides of N-carboxylic derivatives of α-amino-acids. IV., A., 655.
 Wesson, L. G., determination of respiratory quotient of small animals, A., 786.
 formation of fat from carbohydrate by the rat under abnormal conditions; relationship to a possible new dietary factor, A., 797.

- West, A. P. See Herrera-Batteke, P. P., Imperial, G. A., Jovelanos, C. M., Oreta, A. T., Santiago, S., and Smith, F. L.
- West, C. See Kidd, F.
- West, E. See West, F. J.
- West, E. S., [prevention of bumping during] high vacuum distillation, A., 955.
- condensation products of ethyl acetoacetate. III. Compounds of dextrose; antiketogenesis, A., 1173.
- West, E. S. See also Eaton, E. P., and Peterson, V. L.
- West, F. J., West, E., and West's Gas Improvement Co., Ltd., coke-extracting mechanism for vertical retorts for the distillation of carbonaceous materials, (P.), B., 674.
- vortical retort settings for the destructive distillation of coal and the like, (P.), B., 694.
- West, J. See Bragg, W. L.
- West, L. B., drying and heating apparatus, (P.), B., 800.
- West, W. See Kendall, J.
- West Virginia Pulp & Paper Co., and Drewsen, V., converting alkali sulphides into alkali sulphites, (P.), B., 482.
- West Virginia Pulp & Paper Co. See also Drewsen, V.
- Westberg, S., treating solid ferrous material, (P.), B., 46.
- manufacture of iron and steel, (P.), B., 492*.
- Westenberger, J. See Lorenz, R.
- Westenbrink, H. G. K., space-groups of the rhombic and monoclinic heptahydrates of the sulphates of bivalent metals [and of rhombic magnesium chromate], A., 297.
- spatial systems of rhombic and monoclinic heptahydrates of sulphates of bivalent metals, and the series of mixed crystals $Mg(Zn)SO_4 \cdot 7H_2O$, A., 400.
- double salts in the series of isomorphous mixed crystals of magnesium and zinc sulphate, and the occurrence of chemical compounds in the solid state, A., 417.
- Westenbrink, H. G. K. See also Jaeger, F. M.
- Westerholt, F. See Heike, W.
- Western Cartridge Co. See O'Neil, A. S., and Olin, J. M.
- Western Electric Co., Inc., treatment of natural fibrous material for use in or as electric insulating material, (P.), B., 562.
- manufacture of granular carbon, (P.), B., 594.
- Western Electric Co., Inc. See also Boving, H., Gordon, A. F., Hocker, C. D., Honan, E. M., Hosford, W. F., Hull, S. M., Kemp, A. R., Lucas, F. F., Mason, S. R., Smith, G. O., Speed, J. B., and Ziekerich, L.
- Western Electric Norsk A/S., [gold] alloy, (P.), B., 705.
- Western Gas Construction Co., manufacture of water-gas, (P.), B., 468.
- Western Gas Construction Co. See also Stone, T. W.
- Western States Machine Co. See Roberts, E.
- Western Union Telegraph Co. See Curtin, L. P.
- Westgren, A., and Phragmén, G., X-ray analysis of the system chromium-carbon, A., 279.
- Westinghouse Electric & Manufacturing Co. See Brown, A. L., Keene, A. D., Pilling, N. B., Reid, T. A., Robinson, C., Rodman, C. J., Slepian, J., Weber, H. C. P., and Woodson, J. C.
- Westinghouse Lamp Co., gas-filled incandescence lamp, (P.), B., 257.
- Westinghouse Lamp Co. See also Gers, W. B., Gustin, D. S., McAllister, P., MacRae, D., Marden, J. W., Rentschler, H. C., Richardson, H. K., Sproesser, W. C., and Van Voorhis, C. C.
- Westman, A. E. R. See Parmelee, C. W.
- Westman, (Miss) M. E. See Smith, H. G.
- Westmoreland Chemical & Color Co. See Stewart, H. C.
- Weston, H. L., Conkle, R. H., and Clay, W. F., treating brass condenser tubes [against corrosion], (P.), B., 16.
- Westrum, L. S. van, manufacture of bituminous concrete, (P.), B., 484, 780.
- West's Gas Improvement Co., Ltd. See West, F. J.
- Wetherbee, A. U. See Gilchrist & Co., and Graham, W. C.
- Wetherbee, H. E., Grant, R. F., and Hanna, H. M., method and apparatus for recovering and regenerating leaching solutions, (P.), B., 299.
- Wetherbee, H. E. See also Grant, R. F.
- Wetterau, P. C. See Long, J. S.
- Wetterblad, T., changes produced in the $K\beta$ lines of sodium, magnesium, and aluminium by compound formation, A., 491.
- spark lines of the K spectra of sodium, magnesium, and aluminium, A., 491.
- Wever, F., magnetic transformation of iron, A., 627.
- Wever, F. See also Körber, F.
- Weyenbergh, E. van. See Glover, W. H.
- Weygand, C. [with Forkel, H.], salt formation by α -diketones. II. Alkali and alkaline-earth salts of benzoylacetone, A., 971.
- Weyl, J., removal of tar from producer and coke-oven gas by electrostatic precipitation, B., 161.
- Weyl, W. See Krause, H. F.
- Weyland, H., and Winthrop Chemical Co., Inc., anthelmintic, (P.), B., 203*.
- Weyman, G., experiences with American and other coals during the miners' strike, 1926, B., 209.
- Whaite, S. C. See Fuller's United Electric Works, Ltd.
- Whatmough, W. H., manufacture of compositions containing colouring materials [pigments, etc.], (P.), B., 371.
- manufacture of carbon-black pigments or compositions containing the same, (P.), B., 419.
- production of dispersion of solids in liquids and apparatus therefor, (P.), B., 831.
- Wheeler, A. S., and Harris, C. R., *p*-cymene. VI. 6-Nitro-2-amino-*p*-cymene and new azo-dyes, A., 351.
- Wheeler, A. S., and Jennings, E. de W., *p*-cymene. VII. Bromination of 2:6-diamino-*p*-cymene, A., 352.
- reaction between dichloroacetic acid and aromatic amines, A., 552.
- Wheeler, E. S., and Kuechler, A. H., properties of refractories in the metallurgy of zinc. I. Raw materials and body mixtures now in use, B., 750.
- Wheeler, G., colouring the image on photographic plates, films, etc., (P.), B., 621.
- Wheeler, R. C. See Dickey, S. J.
- Wheeler, R. V. See Chapman, W. R., Cockram, C., Ellis, O. C. de C., Mason, T. N., Maxwell, G. B., Mott, R. A., Payman, W., Shepherd, W. C. F., and Walls, N. S.
- Wheeler, T. S. See Long, C. L.
- Wherry, E. T., presence of free methyl salicylate in some American species of *Polygala*, A., 599.
- Whetham, M. D., origin of acetaldehyde in bacterial and animal metabolism, A., 588.
- Whiddington, R. See Brown, D., and Jones, H.
- Whiffen, W. G. See Vautin, C. T. J.
- Whimster, K., effect of ionised air on assimilation and respiration of green leaves, A., 704.
- Whinfield, J. R. See Calico Printers' Assoc., Ltd.
- Whipple, G. H., and Robschheit-Robbins, F. S., muscle hæmoglobin as a source of bile pigment, A., 69.
- Whitaker, A. See Nietz, A. H.
- Whitaker, D., [portable] mixing machines [for concrete], (P.), B., 166.
- Whitaker, H. See Whytlaw-Gray, R.
- Whitaker, R. A. See Nietz, A. H.
- Whitby, G. S., and Greenberg, H., significance of the resin of *Hevea* rubber in vulcanisation and the ageing of raw rubber, B., 19.
- Whitcomb, W. O., and Sharp, P. F., wheat and flour studies. VII. Milling and baking tests of frozen and non-frozen wheat harvested at various stages of maturity, B., 201.
- White, A. See Russell, R. P.
- White, A. G., supposed law of flame speeds, A., 115, 524.
- effect of pressure on the limits for the propagation of flame in ether-air, A., 317.
- burning of carbon disulphide near the limit for the propagation of flame, with remarks on the ignition point of sulphur, A., 524.
- White, A. H., interchangeable laboratory furniture, A., 439.
- White, A. H., Walker, J. H., Partridge, E. P., and Collins, L. F., zeolite water treatment in a large central-heating plant, B., 798.
- White, C. W., destruction of carbon monoxide in the waste gases from internal-combustion engines, (P.), B., 385.
- White, D. R., voltage-intensity relations of mercury lines below ionisation, A., 84.
- White, D. R., and Webb, H. W., voltage-intensity relations of mercury lines below ionisation, A., 1001.
- White, F. D., picrate obtained from normal urine by the method of Findlay and Sharpe, A., 273.
- interaction between guanidine and nucleic acid, A., 548.
- White, F. L. See Hardman, A. F.
- White, G. D., and Texas Co., apparatus for heating stills, (P.), B., 323.
- White, G. N., production of coloured effects in building materials, (P.), B., 878.
- White, H. E. See Gibbs, R. C.

- White, H. L., and Rabinovitch, J., dextrose and salt solutions recovered from Thiry-Vella loops, A., 1107.
- White, J. L. See Dixon, B. E.
- White, M. G. See Nord, F. F.
- White, M. K., and Drakeley, J. J., influence of the age of the cow on the yield and quality of the milk, A., 895.
- White, R. See Moore, H. C.
- White, S. S., Dental Manufacturing Co., and Eberly, N. E., dental cements, (P.), B., 76.
- Whitehead, H., and Hird, H. P., low-temperature carbonisation of coal, lignite, shale, peat, or the like, (P.), B., 180.
- Whitehead, H. R., bacterial nutrition. III. Phosphates and the growth of *Streptococci*, A., 77.
- Whitehead, P. K., and Henshlwood, A. B., [mechanism for controlling] the washing, scouring, and the like treatment of woven and other fabrics, (P.), B., 649.
- Whitehead, S. W. M., mixing apparatus, (P.), B., 240.
- Whitehorn, J. C., chloride determinations [in blood] by modified Volhard titration, A., 985.
- Whiteley, J. H., dissolution of cementite in α -iron and its precipitation, B., 816.
- Whiteley, J. T., and Spinka, E. J., rustless alloy steel, (P.), B., 912.
- Whiteley, M. A., and Yapp, D., reaction between diazonium salts and malonyldiurethane, A., 344.
- Whitenack, T. A. See Williams, J. W.
- Whitfield, B. W. See Joseph, A. F.
- Whiting, A. L., factors controlling the rate of nitrification of organic materials, A., 596.
- Whiting, A. L., and Heck, A. F., assimilation of phosphorus from phytin by oats, B., 120.
- Whiting, A. L. See also Heck, A. F.
- Whitman, V. E., electrification of dust clouds, A., 86.
- Whittaker, C. W., and Fox, E. J., potash from greensand. II. Adsorption from the vapour phase by glaucosil, B., 408.
- Whittaker, C. W. See also Fox, E. J.
- Whittelsey, T., Bradley, C. E., and Naugatuck Chemical Co., treating rubber and similar materials, (P.), B., 120.
- Whittier, E. O., and Benton, A. G., formation of acid in milk by heating, A., 895.
- rate of acid production in heated milk, B., 954.
- Whittle, G. H., plaster for building or other purposes, (P.), B., 110.
- Whytlaw-Gray, R., and Whitaker, H., determination of vapour pressures of aqueous solutions, A., 111.
- Whytlaw-Gray, R. See also Nonhebel, G., and Patterson, H. S.
- Wibaut, J. P., anthraquinonesulphonic acids, A., 566.
- behaviour of carbon and sulphur at high temperatures; [solid] carbon sulphides, B., 876.
- Wiberg, E. See Goldschmidt, S.
- Wiberg, F. M., reducing to carbon monoxide the carbon dioxide content of gases, (P.), B., 645.
- Wiberg, M., production of iron sponge, B., 525.
- Wichers, E., separation of minute quantities of gold from ferric oxide, A., 224.
- Wichers, E. See also Collins, W. D.
- Wichmann, E. See Virtanen, A. I.
- Wichterich, F. See Hertenberg, J.
- Wick, (Miss) F. G., effect of X-rays on thermoluminescence, A., 397.
- Wick, (Miss) F. G., and Slattery, (Miss) M. K., effect of exposure to X-rays on the thermoluminescence of some synthetically prepared materials, A., 397.
- Wickenden, L., Demmerle, W. F., and Industrial Chemical Co., electric furnace for revivifying decolorising carbon, etc., (P.), B., 769.
- Wickenden, L., Okell, S. A. W., and Industrial Chemical Co., manufacture of decolorising carbon, (P.), B., 769.
- Wickenden, T. H., and Vanick, J. S., nickel affects grey iron, B., 191.
- Wickert, J. N. See Merchant, R.
- Wickham, P. E., decolorising china clay, etc., (P.), B., 655.
- Wickwire, G. C. See Burge, W. E.
- Widdis, A., process for preparing soil, (P.), B., 88.
- Widdows, S. T. See Lowenfeld, M. F.
- Widen, P. J. See Gustavson, K. H.
- Widmann, H., recrystallisation of silver and copper, A., 1130.
- Widmann, H. See also Glocker, R.
- Widmark, E. M. P., influence of nutrition of the synthesis of hippuric acid in man, A., 375.
- Widmer, A., and Kalberer, O. E., microscopical investigation of the dregs of wine as a means of detecting fruit wine, B., 568.
- Widmer, R. See Karrer, P.
- Wiebke, F. See Hückel, W.
- Wieczorek, F., cement for joining graphite plates used as electrodes, (P.), B., 450.
- Wiedemann, H., apparatus for the distillation of granulated and like combustibles, (P.), B., 99.
- Wiegand, W., apparatus for evaporating liquids, (P.), B., 688.
- Wiegand, W. B., optimum cure [vulcanisation] criteria in rubber, B., 19.
- Wiegel, E., colour and sensitiveness to light of silver sols, A., 411.
- Wiegand, P., gaslight paper and sulphur toning, B., 509.
- Wiegner, G., preparation of soil suspensions and degree of dispersion as measured by the Wiegner-Gessner apparatus, B., 498.
- Wiegner, G., and Gessner, H., importance of hydrogen-ion concentration in the study of soils, B., 56.
- Wiegner, G., and Jeuny, H., base exchange in permutites; (cationic exchange in cugsels), B., 718.
- Wiekop, L. See Zahn & Co. Bau Chemische Fabrik G.m.b.H.
- Wieland, H. See Rupe, H.
- Wieland, Heinrich, bile acids. XXVII. Constitution of acids resulting from the breakdown of cholic acid, A., 767.
- Wieland, Heinrich, and Cerezo, J., supposed isomerism of 9-methyl-fluorenol, A., 1183.
- Wieland, Heinrich, and Erlenbach, M., quinovic acid. I, A., 562.
- Wieland, Heinrich, and Franke, W., mechanism of oxidative processes. XII. Activation of hydrogen peroxide by iron, A., 944.
- Wieland, Heinrich, and Garbsch, P., ability of enolic ethers to undergo catalytic hydrogenation; constitution of thebaino, A., 54.
- Wieland, Heinrich, Hintermaier, A., and Dennstedt, I. [with Lorenzo, J.], occurrence of free radicals in chemical reactions. V, A., 237.
- Wieland, Heinrich, Schlichting, O., and Jacobi, R., bile acids. XXVI. Nature of the side-chain and of the fourth ring, A., 247.
- Wieland, Heinrich, Schlichting, O., and Langsdorff, W. von, bile acids. XXV. Degradation of [cyclohexane]dicarboxylic acid, A., 243.
- Wieland, Hermann, and Boehringer Sohn, C. H., manufacture of the active principle of lobelia, (P.), B., 893*.
- Wien, M., deviation from Ohm's law for electrolytes, A., 940.
- Wien, W., magnetic displacement of spectral lines, A., 86.
- light-period of the ultra-violet hydrogen series, A., 707.
- behaviour of Schumann plates in the vacuum spectrograph in the observation of canal-rays, A., 707.
- Wierl, R., intensity dissymmetry for the Stark effect in hydrogen, A., 391.
- Wiertelak, J. See Gliselli, S.
- Wierzbička, (Mle.) C. See Weil, S.
- Wierzuchowski, M., intermediate carbohydrate metabolism. II. Kctosis in phloridzin diabetes. III. Vital action of dextrose in phloridzin diabetes, A., 790.
- Wiese, A. See Sabalitschka, T.
- Wiesenthal, H., recovery of volatile solvents by "chemical washing," B., 511.
- Wiesler, K., stability of acetone to light, A., 1055.
- determination of the methoxyl content of volatile substances in dilute aqueous solutions containing aldehydes, A., 1101.
- Wiessmann, H., determination of the fertiliser requirements of soils [by the Neubauer seedling method], B., 307.
- Wiessmann, H., and Bürger, K., influence of potash manures in conjunction with increasing supplies of nitrogen on the yield and quality of barley in 1926, B., 972.
- Wietzel, G. See I. G. Farbenind. A.-G.
- Wietzel, R. See I. G. Farbenind. A.-G.
- Wiggin & Co., Ltd., H., and Lobley, A. G., [parallel-motion doors for] annealing and other furnaces, muffles, and the like, (P.), B., 177*.
- Wigginton, R., resin inclusions in bituminous coals, B., 3.
- gaseous fuels for furnace heating, B., 864.
- Wigglesworth, V. B., digestion in the cockroach. I. Hydrogen-ion concentration in the alimentary canal. II. The digestion of carbohydrates, A., 897.
- Wigglesworth, V. B. See also Woodrow, C. E.
- Wightman, E. P., fogging action of persulphate, B., 765.

- Wightman, E. P., and Quirk, R. F., decomposition of hydrogen peroxide and the mechanism of latent photographic image intensification, A., 1154.
intensification of the latent image on photographic plates and films. I. Latent image intensification, B., 268.
- Wightman, E. P., Trivelli, A. P. H., and Sheppard, S. E., preparation and properties of some synthetic photohalide emulsions, B., 925.
- Wightman, E. P. See also Lambert, R. H., and Sheppard, S. E.
- Wignall, E. W. See Taylor, T. W. J.
- Wignall, J. S. See Hodgson, H. H.
- Wikul, M., regulating device for pinchcocks of burettes, A., 224.
- Wilber, D. T. See Gibbs, R. C., and Nichols, E. L.
- Wilborn, F., maize oil, B., 18.
influence of copper compounds on the drying of linseed oil, B., 707.
analysis of driers, B., 708.
zinc compounds as driers, B., 755.
- Wilbur, P. See Porter, C. W.
- Wilcke, (Frl.) G. See Pietsch, E.
- Wilcox, H. B., Lyttle, J. D., and Hearn, J. E., chemical composition of the cerebrospinal fluid, A., 372.
- Wilcox, K. W., and Bailey, C. R., complex formation amongst the nitrates. I. Ternary system copper nitrate-cobalt nitrate-water, A., 205.
- Wilcox, W. D., manufacture of combustible gas, (P.), B., 402.
- Wilcoxon, F., Grotta, B., and Atlas Powder Co., manufacture of sodium azide, (P.), B., 628.
- Wild, L. W. See Automatic & Electric Furnaces, Ltd.
- Wildensee, F. See Stobbe, H.
- Wildy, E. L. See London Electric Wire Co. & Smiths, Ltd.
- Wiley, F. H., and Lewis, H. B., distribution of nitrogen in the blood and urine of the turtle, A., 1103.
- Wiley, R. E., and Mensing, C. E., producing granular products [sodium hydroxide], (P.), B., 11, 815*.
- Wilhelm, F., working-up acid resins, obtained from the refining of mineral oil derivatives, into natural bitumens, (P.), B., 596.
- Wilhelm, F. See also Sautermeister, C.
- Wilhelm, J. O. See McLennan, J. C.
- Wilhelm, K. F., process for extracting fatty acids from oils and fats, (P.), B., 196*.
- Wilhelm, R., and Commonwealth White Lead & Paints Proprietary, Ltd., manufacture of lead compounds, (P.), B., 372*.
- Wilhelmi, D. F., production of ammonium polysulphide, (P.), B., 628.
- Wilke, E., and Martin, W., theory of concentrated solutions. III., A., 415.
- Wilke, E., and Strathmeyer, W., experimental contributions to the theory of [liquid] diffusion, A., 104.
- Wilke, K. See Schirmacher, K.
- Wilke, W. See Badische Anilin- & Soda-Fabrik.
- Wilke-Dörfurt, E., iodine content of some rocks and its relation to the chemical part of the goitre problem, A., 642.
- Wilke-Dörfurt, E., and Balz, G., fluoroborates, A., 120.
organic salts of hydrofluoboric acid, A., 238.
- Wilke-Dörfurt, E., and Buchholz, desulphurising action of fluorides on molten iron, B., 111.
- Wilke-Dörfurt, E., and Klingenstein, T., fluorspar flux in the iron foundry cupola furnace, B., 222.
- Wilkening, L. G., treatment of peat or marsh soil to render them proof against moisture and fire, (P.), B., 133.
- Wilkin, R. E., and Standard Oil Co., rustproofing oil, (P.), B., 549.
- Wilkins, C. A., and Wilkins, S. D., insecticide, (P.), B., 612.
- Wilkins, H. See Sugden, S.
- Wilkins, S. D. See Wilkins, C. A.
- Wilkinson, H., apparatus for the cooling or heating of liquids, (P.), B., 623.
- Wilkinson, H., and Tyler, A. G., volumetric analysis of malachite green with titanous sulphate and titanous chloride solutions, B., 359.
stability of titanous sulphate solutions in air, B., 364.
stability of titanium sulphate solutions, B., 652.
- Wilkinson, H. H., and Union Sulphur Co., sulphur purification, (P.), B., 188.
- Wilkinson, J. A. See Guam, G. N.
- Wilkinson, S. W., and Zair Syndicate, Ltd., dyeing animal fibres and fabrics of a protein nature, (P.), B., 439*.
- Wilkinson, W., and Air Reduction Co., Inc., separation of constituents of ternary gaseous mixtures, (P.), B., 400.
- Will, E., desulphurisation of fuel gases, (P.), B., 805.
- Will, E. G. See Scott, R. D.
- Willaman, J. J., tests on the relative sweetness of sucrose and laevulose, B., 664.
- Willaman, J. J. See also Hauge, S. M.
- Willard, A. C., and Blunt, K., pasteurised and dried milk as source of calcium, phosphorus, and nitrogen, A., 1218.
- Willard, C. F., devulcanising vulcanised rubber and the product thereof, (P.), B., 19.
- Willard, H. H. See Green, M.
- Willeke, H., and Junker, F., influence of binding material in sausages on the detection of added water by the Feder method, B., 712.
- Willems, H. W. V. See De Jong, W. F.
- Willey, E. J. B., active nitrogen, A., 635.
active nitrogen. III. Active nitrogen and the metals, A., 1038.
- Willey, E. J. B., and Rideal, E. K., active nitrogen. II. Reactions with gases, A., 431.
- Willgress, R. E. See King, J. G.
- Willheim, R., proteins having the Bence-Jones reaction; reversibility of heat coagulation, A., 273.
- Williams, A. L. See Lerrigo, A. F.
- Williams, A. T. See Loyarte, R. G.
- Williams, E. J., passage of α -rays and β -rays through matter, A., 393.
- Williams, E. J. See also Nuttall, J. M.
- Williams, F. A., effect of temperature on the viscosity of air, A., 13.
- Williams, H. E., extraction of tanning materials using a modified Teas' extractor, B., 260.
- Williams, H. M., Boegehold, A. L., and General Motors Research Corporation, bearing; alloy structures, (P.), B., 820*.
- Williams, H. M., and General Motors Research Corporation, manufacture of [composite] lead-copper particles, (P.), B., 658.
- Williams, I., measurement of abrasion-resistance of rubber, B., 635.
- Williams, I. See also Grasselli Chemical Co.
- Williams, J. F., determination of methyl alcohol in alcohol and alcoholic beverages using the immersion refractometer, B., 686.
- Williams, J. F. See also Riegel, E. R.
- Williams, J. M. See Edwards, M. J.
- Williams, J. W., and Algeier, R. J., dielectric constants of binary mixtures. IV. Benzene as solvent for certain solid substances, A., 1132.
- Williams, J. W., and Krehma, I. J., dielectric constants of binary mixtures. II. Electric moments of certain organic molecules in benzene solution, A., 819.
- Williams, J. W., and Whitenack, T. A., application of the electron tube to potentiometric titrations, A., 434.
- Williams, J. W. See also Krehma, I. J.
- Williams, M. See Burge, W. E.
- Williams, N. H., and Vincent, H. B., determination of electronic charge from measurements of shot-effect in aperiodic circuits, A., 85.
- Williams, O. E. See Leighton, A.
- Williams, P. T., and Minerals Separation, Ltd., froth-flotation concentration of coal, (P.), B., 693.
- Williams, R. C., and Diatom Insulation Co., preparation of diatomaceous earth, (P.), B., 96.
- Williams, R. D., rapid determination of phenol in ammonia liquor and other solutions, B., 358.
- Williams, R. J., Wilson, J. L., and Ahe, F. H. von der, control of "bios" testing and the concentration of "bios," A., 592.
- Williams, R. R., and Kemp, A. R., submarine insulation with special reference to the use of rubber, B., 149.
- Williams, R. T. D. See Gepp, H. W.
- Williams, S. J., manufacture of [plates for] accumulators or electrical storage batteries, (P.), B., 416.
- Williams, S. R., correlation of magnetic properties with mechanical hardness in cold-worked metal, B., 604.
- Williams, T. L. See Benton, A. F.
- Williams, V. V. See Demjanov, N. J., and Nilov, V. I.
- Williamson, J. E. See Cameron, A. T., and Jewell Export Filter Co.
- Williamson, W. T. H. See Kermack, W. O.
- Williger, J., feeding she-goats with glycine as a substitute for protein, A., 276.

- Willimott, *S. G.*, adsorption of carotin by charcoal and inorganic salts, A., 820.
 loss appreciated constituents of orange juice, B., 615.
 Willimott, *S. G.*, and Moore, *T.*, feeding of xanthophyll to rats on a diet deficient in vitamin-A, A., 381.
 Willimott, *S. G.*, Moore, *T.*, and Wokes, *F.*, effects of various agents on colour tests for vitamin-A, A., 78.
 Willimott, *S. G.*, and Simpson, *I. A.*, synthesis of some substituted 3-methylquinolines, A., 256.
 Willimott, *S. G.*, and Wokes, *F.*, vitamins and other constituents of grape-fruit rind, A., 79.
 antirachitic vitamin of cod-liver oil, A., 79.
 effect of irradiation on vitamin-A, A., 381.
 vitamins-A and -D of spinach, A., 904.
 constituents of citrus fruits, B., 615.
 Willimott, *S. G.* See also Moore, *T.*, Redman, *T.*, and Wokes, *F.*
 Willison, *W. W.*, and Thermokept Corporation, [protectively] treating food products, (P.), B., 795.
 Willock, *H. H.*, Caplan, *S. J.*, Babb, *J. E.*, and Waverly Oil Works Co., lubricant, (P.), B., 516.
 Willoughby, *A. B.*, impact pulveriser, (P.), B., 383.
 Wills, *C. H.*, and Smith, *J. K.*, production of steel, (P.), B., 447.
 Wills, *C. H.* See also Smith, *J. K.*
 Wills, *L.*, Sanderson, *P.*, and Paterson, *D.*, rickets; calcium absorption in relation to gastric acidity, A., 896.
 Willson, *F. G.* See Crawford, *J. W. C.*, and Long, *C. L.*
 Willstätter, *R.*, and Kraut, *H.*, hydrates and hydrogels. X. Detection of hydroxides in hydrogels, A., 17.
 Willstätter, *R.*, Kuhn, *R.*, Lind, *O.*, and Memmen, *F.*, inhibition of liver esterase by esters of keto-acids, A., 793.
 Willstätter, *R.*, Waldschmidt-Leitz, *E.*, Dufaiturria, *S.*, and Künstner, *G.*, trypsin. XV. Enzymes of the pancreas, A., 174.
 Willstrop, *J. W. W.* See Sutton, *H.*
 Wilmet, *M.*, sensitiveness of some reagents for gaseous hydrogen sulphide, A., 221.
 sensitiveness of some test papers for gaseous phosphine, A., 744.
 rapid determination of gaseous hydrogen phosphide in a mixture, A., 846.
 Wiley, *R. B.*, and Pritchard, *H. A.*, comparison of X-ray and white light exposures in photographic sensitometry, B., 157.
 Wilson, *C. H.*, hardness testing device, (P.), B., 863.
 Wilson, *C. N.*, effect of neutral-red preparations on *Paramecium caudatum*, A., 1220.
 Wilson, *E.*, corrosion products and mechanical properties of certain light aluminium alloys as affected by atmospheric exposure, B., 167.
 Wilson, *E. G.* See Atkins, *W. R. G.*
 Wilson, *F. J.* See Baird, *W.*, and Brown, *A. C.*
 Wilson, *H. A.*, chemical equilibrium in a mixture of paraffins, A., 1139.
 Wilson, *H. E.* See Bradley, *M. J.*
 Wilson, *H. E. C.* See Deuel, *H. J.*, jun.
 Wilson, *H. F.*, and Mattingley, *F.*, use of the potassium iodide and iodate method for the titration of Kjeldahl distillates, A., 35.
 Wilson, *I. S.* See Baker, *J. W.*, and Ingold, *C. K.*
 Wilson, *J.*, recent advances in the application of [anthraquinone] vat colours, B., 873.
 Wilson, *John.* See Kenner, *J.*
 Wilson, *John A.*, and Duratex Corporation, manufacture of nitro-cellulose film, (P.), B., 138.
 Wilson, *John Arthur*, and Kern, *E. J.*, effect of relative humidity on the destruction of leather by acid, B., 197.
 Wilson, *J. B.* See Sale, *J. W.*
 Wilson, *J. K.*, and Lyon, *T. L.*, growth of certain micro-organisms in planted and in unplanted soil, B., 395.
 Wilson, *J. L.* See Williams, *R. J.*
 Wilson, *J. S.*, Thomas, *J.*, and Scottish Dyes, Ltd., dyeing and printing of vat colours, (P.), B., 840.
 Wilson, *L. M.*, uses of coke-oven gas in the steel industry, B., 142.
 Wilson, *O. G.*, jun., specific and sensible heats of petroleum oils, B., 594.
 Wilson, *P. W.*, Petersen, *W. H.*, and Fred, *E. B.*, production of acetylmethylcarbinol by *Clostridium acetobutylicum*, A., 1114.
 Wilson, *R.* See Ashton, *F. W.*
 Wilson, *R. E.*, and Baltimore Gas Engineering Corporation, removing volatile fluids from solids containing same, (P.), B., 64.
 Wilson, *R. E.*, and Standard Oil Co., furnace for the treatment of spent fuller's earth, (P.), B., 626.
 prevention of evaporation of petroleum oils, (P.), B., 931.
 Wilson, *R. E.* See also Rogers, *F. M.*
 Wilson, *R. H.*, and Lewis, *H. B.*, cystine content of hair and other epidermal tissues, A., 787.
 Wilson, *T. A.* See Davey, *W. P.*, and Macleod, *J.*
 Wilson, *V. K.* See Challenger, *F.*
 Wilson, *W. C.*, and Quaker Oats Co., manufacture of furan, (P.), B., 797.
 Wilson, *W. H.*, reaction of fatty extracts of certain organs with the antimony trichloride test for "vitamin-A," A., 1223.
 Wilson Brothers Bobbin Co., Ltd. See Bone, *K. S. C.*
 Wilson Co., *H. A.* See Fry, *C. E.*
 Wiltshire, *J. L.* See Barnett, *E. de B.*
 Wimmer, *A.*, macro- and micro-structure of blowhole segregations in steel, B., 631.
 Wimmer, *J.* See Mugdan, *M.*
 Wimmer, *M.*, influence of foreign gases on the infra-red absorption band at 4.2μ of carbon dioxide; application to analysis, A., 89.
 Winands, *E.* See Starlinger, *W.*
 Winans, *J. G.*, impact fluorescence of zinc, A., 810.
 Winkel, *M.*, and Weicker, *H. G.*, vitamin preparation, (P.), B., 503.
 Wind, *F.*, metabolism of transplanted tissues and their growth in the absence of oxygen and carbohydrate, A., 373.
 Windaus, *A.*, transformations of cholesterol, A., 557.
 Windaus, *A.*, Hampe, *P.*, and Rabe, *H.*, sapogenins of quillaic acid, A., 42.
 Windaus, *A.*, and Schoor, *A. van*, chenodeoxycholic acid. III, A., 56.
 constituents of hen bile, A., 272.
 Windhausen, *O.* See Dinslage, *E.*
 Windisch, *F.* See Rathke, *E.*
 Windisch, *W.*, empiricism and science in brewing, B., 424.
 Windisch, *W.*, and Kolbach, *P.*, influence of hydrogen-ion concentration on development of colour during wort boiling, B., 423.
 Windisch, *W.*, Kolbach, *P.*, and Ruckdeschel, *H.*, formation of lactic acid from sugar by the action of alkalis; [determination of lactic acid in aqueous solutions], A., 1053.
 Windisch, *W.*, Kolbach, *P.*, and Schüren, *W.*, antiseptic action of the bitter substances of hops, B., 711.
 Windle, *E.* See Armstrong, Whitworth & Co., Ltd., (Sir) W. G.
 Winegarden, *H. M.* See Raymond, *A. L.*
 Winestock, *O. C.*, defibration of paper and the like, (P.), B., 104.
 Winkelmann, *H. A.*, present and future of reclaimed rubber, B., 19.
 Winkelmann, *W.*, derivatives of 2:4:6-trichloropyrimidine, A., 678.
 Winkler, *A.*, gas producers, (P.), B., 99.
 Winkler, *F.* See I. G. Farbenind. A.-G.
 Winkler, *H.*, and Volkmann, *H.*, ammonia development of [photographic] prints, (P.), B., 957.
 Winkler, *K.* See I. G. Farbenind. A.-G.
 Winkler, *L. W.*, iodine-bromine values of the ethereal oils, B., 669.
 determination of iodine-bromine numbers with potassium bromate and arsenite solution, B., 883.
 Winkler, *P. E.*, volumetric determination of antimony and arsenic, A., 1160.
 Winkler, *W. A.-G.*, and Stocker, *H.*, up-grading of mineral pigments, (P.), B., 197.
 Winks, *F.* See English, *S.*, and Firth, *E. M.*
 Winslow, *H. F.*, grinding viscous materials, (P.), B., 464.
 Winston, *A. W.* See Gann, *J. A.*
 Winter, See Schade.
 Winter, (Miss) *A. G.* See Clark, *R. H.*
 Winter, *H.*, colloid chemistry of coal and related problems, B., 690.
 Winter, *L. B.*, fate of deoxyglucose in the rabbit, A., 282.
 isolation from tissues of certain pentose derivatives, A., 691.
 Winter, *W.*, and Jordan, *H.*, apparatus for bleaching, dyeing, washing, and drying yarns or fabrics, (P.), B., 747.
 Winterhalder, *L.* See Schöpf, *C.*
 Winterhalder, *W.* See Skita, *A.*
 Winternitz, *M. C.* See Osborne, *T. B.*
 Winterstein, *A.* See Kuhn, *R.*
 Winterstein, *E.*, and Walter, *M.*, constitution of yohimbine, A., 1208.

- Winterstein, H., and Hirschberg, E., solubility and distribution of chloroform in blood, A., 893.
- Wintersteiner, O. See Abel, J. J., and Levene, P. A.
- Winterton, A. H. See Johnson, E. H.
- Wintgen, R., charge on the particles in colloids, A., 109.
- Wintgen, R., and Vöhl, M., effect of colloidal and semi-colloidal ferric oxide sols on aqueous gelatin solutions, A., 726.
- Winthrop Chemical Co., Inc. See Hahl, H., Leuchs, F., Lieske, R., Schranz, K., and Weyland, H.
- Wintner, A., specific oscillations characteristic of continuous spectra, I., II., and IV., A., 1, 81, 285.
- Winton, F. R., rat-poisoning substance in red squills, A., 991.
- Wirth, E., contrast between actions of red and white squills, A., 991.
- Wirth, E., isolation of acridine and acridines with free meso-position from mixtures with other substances; preparation of 9-cyanoacridine, (P.), B., 925.
- Wirth, E., and Sulzer Frères Soc. Anon., absorption refrigerator, (P.), B., 624*.
- Wirz, K. See Braun, J. von.
- Wischin, R. A., regeneration of used lubricating and transformer oils, B., 547.
- Wisdom, S. A. See Canada Carbide Co., Ltd.
- Wiser, O., selective flotation of minerals from crude ores, (P.), B., 753.
- Wislicki, L. See Rosenthal, F.
- Wisner, C. B., rotary furnace, (P.), B., 431.
- Wiśniewski, F. J. von, magnetic susceptibilities of oxygen and nitrogen, A., 300.
- tentative explanation of the Zeeman effect of types D_1 and D_2 , A., 707.
- models for monatomic and diatomic molecules based on those of helium and hydrogen, A., 921.
- chemical constants of diatomic molecules, A., 922.
- Wisemann, F. See Grossfeld, J.
- Wissler, W. A., and Haynes Stellite Co., non-ferrous [tool] alloy, (P.), B., 16.
- Withey, W. H., surface film of aluminium, A., 634.
- analysis of the simpler glasses, B., 654.
- Withrow, J. R. See Arthur, E. P.
- Witmer, E. W., critical potentials and the heat of dissociation of hydrogen as determined from its ultra-violet band spectrum, A., 180*.
- Witt, F. See Bone, W. A.
- Witte, W., and United States Finishing Co., process of finishing fabrics [viscose], (P.), B., 776.
- Wittek, H., extraction of neutral oils from tar, tar-oil, or pitch, (P.), B., 901.
- Wittgenstein, A., and Gaedertz, A., lactic acid content of cerebrospinal fluid, A., 895.
- Wittig, G., and Blumenthal, H., action of ammonia and its derivatives on o-acetoacetylphenols, A., 668.
- Wittka, F., detection of hardened fats, B., 944.
- Wittlich, M., fluorescence of low-temperature distillation products of oil shales, B., 865.
- Wityn, J., permeability of loam soils, B., 587.
- Witz, H. E., and Babcock & Wilcox Co., pulveriser, (P.), B., 383.
- Witzemann, E. J., catalytic oxidation effects that resemble the specific dynamic effect, A., 539.
- Wizinger, R. [with Fontaine, J.], auxochromes and antiauxochromes. I. Tetraphenylethane dyes, A., 764.
- Wlostowska. See Vlostovska.
- Wobbe, D. E., and Noyes, W. A., jun., photochemical studies. IV. Thermal decomposition of anhydrous oxalic acid and its relation to photochemical decomposition, A., 30.
- Wöhler, L., testing of detonators, (P.), B., 204.
- Wöhler, L., Roth, J. F., and Ewald, K., method for testing initiating substances (detonators), B., 717.
- Wöhlisch, E., and Schloss, J., physical chemistry of fibrinogen. II. Solubility minimum and acid-binding power in salt solution, A., 985.
- Wohlens, F. T., apparatus for making anhydrous metallic chlorides, (P.), B., 331*.
- Wohlgemuth, J., and Ikebata, T., enzymes of the skin. VIII. Formation of lactic acid in the skin and the effect thereon of various rays, A., 894.
- Wohnlich, E. See Gronover, A.
- Wokes, F., and Barr, J. R., antimony trichloride and some factors affecting its sensitivity as a reagent for vitamin-A, B., 569.
- Wokes, F., and Irwin, J. H., use of certain carbohydrates and glucosides in the differentiation of members of the *Salmonella* group of food-poisoning bacilli, B., 569.
- Wokes, F., and Willimott, S. G., effect of heat and oxidation on cod-liver oil as measured by colour tests, A., 487.
- antimony trichloride as a possible quantitative reagent for vitamin-A, A., 1223.
- detection and determination of vitamin-A and of vitamin-D in cod-liver oil and various food products, B., 569.
- Wokes, F. See also Redman, T., and Willimott, S. G.
- Wolcott, E. R., and Texas Co., manufacture of sulphuric acid, (P.), B., 74.
- production of chlorine and aluminium chloride, (P.), B., 140.
- manufacture of aluminium chloride, (P.), B., 388.
- production of aluminium chloride, (P.), B., 556*.
- Woldich, K. See Weiss, R.
- Wolf, A., and Weatherby, B. B., absorption coefficient of helium for its own radiation, A., 177.
- Wolf, A. See also Weatherby, B. B.
- Wolf, Anton. See Freudenberg, K.
- Wolf, F., and Kuhn, H., [apparatus for] manufacture of lustrous fabrics, (P.), B., 71*.
- manufacture of lustrous fabrics, (P.), B., 165.
- Wolf, Franz, electron velocities in the normal and selective photo-electric effect, A., 913.
- precision measurement of e/m_0 by the method of H. Busch, A., 913.
- Wolf, H. See Speyer, E.
- Wolf, J., imprinting photographic plates, films, etc., (P.), B., 269.
- Wolf, J. T. See Miriam, S. R.
- Wolf, Karl, pressure dependence of dielectric constant of gases and vapours at low pressures, A., 188.
- Wolf, Klara. See Wolf, Kuno.
- Wolf, Kuno, and Wolf, Klara, dehydration of coal sludge, (P.), B., 132.
- Wolf, Kuno. See also Prätorius, M.
- Wolf, Kurt, determination of p_H value, A., 952.
- Wolf, Kurt. See also Bettzieche, F.
- Wolf, K. L., low-voltage vacuum arc; carbon line 4267 Å., A., 1.
- dispersion and molecular refraction of the alkali halides, A., 8.
- hot-cathode vacuum discharges in gases and the vapours of metals, particularly iron, and their application to spectroscopy, A., 909.
- Wolf, P., apparatus for washing coals, (P.), B., 161.
- Wolf, W. See Eisen- & Stahlwerk Hoesch A.-G.
- Wolfe, H. S., surface forces of soils in the neighbourhood of their hygroscopic capacity, B., 587.
- Wolfenden, J. H., Jackson, W., and Hartley, (Sir) H. B., heats of ionisation in methyl alcohol, A., 733.
- Wolfenden, J. H., Wright, C. P., Kane, N. L. R., and Buckley, P. S., use of amalgam electrodes for determining activities in methyl alcohol, A., 1027.
- Wolfenstein, R., and Reitmann, J., sparteine, A., 887.
- Wolf, A. See Terroine, F.
- Wolf, H., linseed oil with a positivo Storch-Morawski [Liebermann] reaction, B., 196.
- [paint] driers, B., 340.
- linseed oil stand oil, B., 531.
- particle size and volume of a powder, B., 543.
- are there resinogenic and resinophoric groups? B., 851.
- Wolf, H., and Toeldte, W., fluorescence-analysis of oil varnishes, B., 19.
- fluorescence- and capillary-analysis of resins, B., 50.
- Wolf, H., and Zeidler, G., testing the mechanical properties of paint and varnish films. I., B., 563.
- mechanical properties of varnish films, etc., B., 755.
- Wolf, H. See also I. G. Farbenind. A.-G.
- Wolf, J., and Loiseleur, J., biochemical oxidation of ferrous malate, A., 174.
- Wolf, J. L. See Grandchamp, L. E.
- Wolf, R., practical model of micro-pipette, A., 284.
- Wolf, W. See Richter, F., and Traube, W.
- Wolf & Co., Czapek, E., and Bauer, E., manufacture of hollow articles from cellulose or its derivatives, (P.), B., 963.
- Wolf & Co., Czapek, E., and Weingand, R., manufacture of hollow articles from viscose and similar cellulose solutions, (P.), B., 185.
- production of artificial silk from cellulose or cellulose compounds, (P.), B., 699.

- Wolff & Co., Czapek, *E.*, and Weingand, *R.*, production of foils, skins, bands, etc., from cellulose, (P.), B., 745.
- Wolff & Co., and Frowein, *F.*, production of potassium nitrate from crude potassium salts, (P.), B., 298.
- Wolff & Co., and Schulz, *Hans*, purification, decomposition, and stabilisation of cellulose esters, cellulose ethers, and artificial materials produced therefrom, (P.), B., 811.
- Wolff & Co., and Schulz, *H. I.*, application of coatings of nitro-cellulose lacquers, (P.), B., 916.
- Wolff & Söhne, G.m.b.H., *P. J.*, and Mallickh, *H.*, pulping machines for paper mills, (P.), B., 935.
- Wolffenstein, *R.*, nitrogenous derivatives of terpene alcohols, (P.), B., 28, 173*.
- Wolfgang, *K.*, process for "brightening" [dyed] silk, B., 905.
- Wolfmann, *H.* See Fichter, *F.*
- Wolford, *E. Y.* See McIntosh, *J.*
- Wolfram, *A.*, and Durand & Huguenin Soc. Anon., manufacture of stable derivatives of vat dyestuffs, (P.), B., 965*.
- Wolfram, *A.* See also I. G. Farbenind. A.-G.
- Wolfram, *H. G.*, and Turk, *R. H.*, ageing of enamels, B., 629.
- Wolfram, *H. G.* See also Harrison, *W. N.*
- Wollak, *R.* See Kurtenacker, *A.*
- Wollaston, *T. R.*, gas-producer and combined furnace, (P.), B., 739.
- Wolman, *A.*, rôle of iron in the activated-sludge process, B., 270.
- Wolman, *K. H.*, Peters, *F.*, and Pfug, *H.*, wood preservative, (P.), B., 678.
- Wolter, *H.* See Terres, *E.*
- Wolzogen Kühr, *C. A. H. von*, manganese in waterworks, B., 717.
- Woo, *L. P. L.* See Klosky, *S.*
- Woo, *P. N.*, flavouring compound [sodium glutamate], (P.), B., 26.
- manufacture of edible substances, (P.), B., 795.
- Woo, *Y. H.*, disappearance of the unmodified line in the Compton effect, A., 1000.
- intensity distribution in the *K α* -doublet of the fluorescence X-radiation, A., 1000.
- ratio of intensities of modified and unmodified rays in the Compton effect, A., 1000.
- Wood, *A.* See Paton, *J. D.*
- Wood, *A. E.* See Thornton, *W. M., jun.*
- Wood, *B. G.*, and Ivanpah Lime & Chemical Co., manufacture of precipitated calcium carbonate, (P.), B., 965.
- Wood, *B. J.*, and Rideal, *E. K.*, photo-bromination of cyclohexane, A., 1154.
- Wood, *C. D.*, and Grasselli Chemical Co., process of making paper from straw, (P.), B., 746.
- Wood, *F. M.*, development of a pink colour in lignified tissues by the chloroamine reaction, A., 704.
- Wood, *J.*, ageing apparatus for treating fabrics, B., 139*.
- Wood, *J. F.*, crystal structure of some oxalates, A., 190.
- Wood, *J. F. L.*, Houldsworth, *H. S.*, and Cobb, *J. W.*, influence of foreign matter on the thermal expansion and transformation of silica, B., 441.
- Wood, *J. K.* See Adamson, *A. N.*
- Wood, *N. E.* See Francis, *F.*
- Wood, *R. J.* See British Alizarine Co., Ltd.
- Wood, *R. W.*, variation of intensity ratios of optically excited spectrum lines with the intensity of the exciting light, A., 1117.
- Wood, *R. W.*, and Loomis, *A. L.*, spectra of high-frequency discharges in super-vacuum tubes, A., 1008.
- Wood, *T.*, vibratory screens or sieves [for coal, etc.], (P.), B., 68*.
- Wood, *T. E.*, and Heymann, *H.*, drying machines for loose textile yarns and fabrics and other materials, (P.), B., 649.
- drying or heating apparatus, etc., (P.), B., 719.
- Wood, *W. H.*, [wood separators for] storage battery, (P.), B., 607.
- Wood, *W. R.*, cyclone separators or dryers, (P.), B., 32.
- method of pulverising and apparatus therefor, (P.), B., 575.
- Woodall-Duckham (1920), Ltd., and Krall, *R.*, apparatus for separating solids [coal] from liquids, (P.), B., 64.
- Woodall-Duckham (1920), Ltd., and Reber, *J. W.*, producer or shaft furnace, (P.), B., 128.
- Woodall-Duckham (1920), Ltd., and Wellington, *S. N.*, apparatus for charging furnaces, gas-producers, etc., (P.), B., 592.
- Woodall-Duckham (1920), Ltd. See also Smith, *E. W.*
- Woodcock, *W. G.*, Drescher, *H. A. E.*, Beckett, *E. G.*, Thomas, *J.*, and Scottish Dyes, Ltd., production of a [vat] dye [of the anthraquinone series], (P.), B., 437.
- Wooddell, *J. F.* See Fishel, *W. P.*
- Woodhead, *A. E.* See Sandoz Chemical Co., Ltd.
- Woodhead, *D. W.* See Campbell, *C.*
- Woodhouse, *C. P.* See Taylor, *T. W. J.*
- Woodlands, Ltd. See Chitty, *C. W.*, Hutchinson, *R.*, and Kent-Jones, *D. W.*
- Woodley, *J. W.* See Fairbourn, *A.*
- Woodley, *J. W. A.* See Butcher, *R. W.*
- Woodman, *H. E.*, mechanism of cellulose digestion in the ruminant organism, A., 897.
- Woodman, *H. E.*, Blunt, *D. L.*, and Stewart, *J.*, nutritive value of pasture. II. Seasonal variations in the productivity, botanical and chemical composition, and nutritive value of pasturage on a heavy clay soil, B., 588.
- Woodman, *H. E.*, and Stewart, *J.*, composition of flaked maize, B., 397.
- Woodman, *R. M.*, density of binary liquid mixtures at 25°, A., 196.
- physics of spray liquids. V. Paraffin-cresols-soap solutions: detergent action of soaps, B., 23.
- detergent action of soaps, B., 83.
- solubility of some likely spray substances in solvents containing soap; preparation of spraying emulsions, B., 232.
- Woodroffe, *D.*, action of oxalic and hydrochloric acids on vegetable-tanned leathers, B., 790.
- Woodroffe, *D.*, and Dew, *D. H.*, action of iron blacks on leather, B., 420.
- Woodroffe, *D.*, and Gilbert, *D. B.*, effect of filling materials on the strength and stretch of sole leather, B., 497.
- action of hæmatin and iron salts on leather and fabric, B., 791.
- Woodroffe, *D.*, and Hancock, *F. H.*, action of sulphuric acid on leather, B., 757.
- Woodroffe, *D.*, and Meadows, *A.*, action of hæmatin and hæmatin-ammonia solutions on vegetable-tanned leathers, B., 790.
- Woodrow, *C. E.*, and Wigglesworth, *V. B.*, production of lactic acid in frog's muscle *in vivo*, A., 897.
- Woodruff, *J. C.*, synthetic methyl alcohol and ammonia from butyl fermentation gases, B., 888.
- Woodruff, *J. C.*, Bloomfield, *G.*, and Commercial Solvents Corporation, catalysts for synthetic methyl alcohol production, (P.), B., 125, 540.
- Woodruff, *S.* See Glatfield, *J. W. E.*
- Woods, *A. C.*, and Burky, *E. L.*, lens protein and its fractions, A., 1215.
- Woods, *E. B.*, citric acid metabolism, A., 374.
- Woodson, *J. C.*, and Westinghouse Electric & Manufacturing Co., electric furnace, (P.), B., 391, 607.
- Woodward, *J. D.* See Hamby, *A. B.*
- Woodworth, *C. M.* See Cole, *L. J.*
- Woog, *P.*, hollowing of tungsten bars by central fusion, B., 113.
- Wooldridge, *W. R.* See Quastel, *J. H.*
- Wooster, *W. A.* See Ellis, *C. D.*
- Worcester Salt Co. See Nash, *J. E.*
- Working, *E. B.* See Swanson, *C. O.*
- Worley, *F. P.*, and Andrews, *J. C.*, mutarotation. I. Velocity of mutarotation of α -glucose in methyl alcohol and water, A., 631.
- Worley, *F. P.* See also Andrews, *J. C.*
- Wormall, *A.* See Platt, *B. S.*
- Wormell, *R. L.* See Wardlaw, *W.*
- Worrall, *D. E.*, addition of amino- and hydrazino-bases to nitro-styrene, A., 761.
- Worsley, *R. R. le G.* See Burmah Oil Co.
- Worthing, *A. G.*, deviation from Lambert's law and polarisation of light emitted by incandescent tungsten, tantalum, and molybdenum, and changes in the optical constants of tungsten with temperature, A., 100.
- Woyni, *T. J.*, crystallography of phenyl α -naphthyl ketone, A., 191.
- Wrede, *E.*, magnetic separation in hydrogen streams, A., 397.
- deflexion of streams of electrical dipole molecules in non-uniform electric fields, A., 917.
- Wrede, *F.*, Bolt, *F.*, and Buch, *E.*, crystals of Charcot, Leyden, Böttcher, and Neumann, A., 478.
- Wrede, *F.*, Fanselow, *H.*, and Strack, *E.*, spermine. V. and VI., A., 264, 651.
- Wrede, *H.*, tasteless, odourless, water- and fat-soluble printings on parchment paper, (P.), B., 438.
- Wreesmann, *F.*, atomising liquid and semi-liquid materials, (P.), B., 689.
- Wreschner, *M.*, and Loeb, *L. F.*, manufacture of preparation which emits β -rays, (P.), B., 797.

- Wright, (Sir) A. E., interaction, A., 520.
 Wright, A. H., and Gibson, F. H., polarised platinum electrode in neutralisation reactions, A., 637.
 Wright, A. M., and Forsyth, J. C., edible viscera, B., 426.
 Wright, C. P. See Wolfenden, J. H.
 Wright, G. S., fermentable sugars of malt. I., B., 313.
 Wright, H. T., and Esling, F., conversion of heavy hydrocarbon oils into lighter hydrocarbon oils, (P.), B., 181.
 Wright, J. F., treating impure crude oil, (P.), B., 436.
 Wright, J. G. E., Bartlett, W. J., and General Electric Co., preparation of an ester-resin composition, (P.), B., 609*.
 Wright, L. O., comparison of sensitivities of various tests for methyl alcohol, A., 687.
 Wright, P. A. See Holm, G. E.
 Wright, R., selective solvent action. IV. Effect of temperature on the solubilities of semi-solutes in aqueous alcohol, A., 721.
 Wright, S., apparatus for atomising liquids, (P.), B., 896.
 Wright, S. L., jun., colorimetric correction curves, A., 284.
 Wright, W. H., and Foundation Oven Corporation, coke oven, (P.), B., 866.
 Wright, W. M., low-temperature oxidation at charcoal surfaces. IV. Active areas for different acids and relative rates of oxidation, A., 1039.
 Wright, W. M. See also Rideal, E. K.
 Wu, H., and Lin, K. H., denaturation of proteins. III. Denaturation of hemoglobin, A., 688.
 Wu, H., and Ling, S. M., colorimetric determination of proteins of plasma, cerebrospinal fluid, and urine, A., 689.
 Wu, S., Tenbroeck, C., and Li, C. P., denaturation of proteins. IV. Effect of denaturation on antigenic properties of egg-albumin, A., 986.
 Wük, G. See Qvist, W.
 Wüllfing, J. A. von, manufacture of water-soluble protein-silicic acid compounds, (P.), B., 974.
 Wünnenberg, E. See Geilmann, W.
 Wünsche, E. See John, H.
 Würker, F. W., pickling, scaling, and removing rust from articles of iron and steel, (P.), B., 16.
 electroplating with chromium, (P.), B., 194.
 electrolytic separation of metallic chromium, (P.), B., 338*.
 Würth, K. See Oertel, W.
 Wüst, F., reverberatory furnaces [for metals], (P.), B., 115.
 direct production of iron [from its ores], B., 630.
 theory of the blast-furnace process, B., 816.
 Wüster, A., and Pivovarsky, E., determination of the gas content of molten metals, B., 681.
 Wuillot, A. See Bigwood, E. J.
 Wukte, J. See I. G. Farbenind. A.-G.
 Wulf, O. R., laboratory apparatus for the electrolytic preparation of oxygen and of ozone, A., 955.
 Wulf, O. R., and Tolman, R. C., thermal decomposition of ozone. I. Homogeneity, order, specific rate, and dependence of rate on total pressure. II. Effect of oxygen and accidental catalysts on the rate, A., 631, 943*.
 thermal decomposition of ozone. III. Temperature coefficient of reaction rate, A., 834, 943*.
 Wulf, C. See Skita, A.
 Wulff, P., determination of hydrogen-ion concentration with colloid membranes containing indicators, A., 221.
 Wunder, W., aluminium in electro-technology, B., 143.
 Wurm, O. See Berg, R.
 Wurmser, R. See Aubel, E., Henri, V., and Rapkine, L.
 Wuyts, H., formation of peroxides in the oxidation of organo-magnesium compounds, A., 451.
 Wyatt, W. F. See Tryhorn, F. G.
 Wyckoff, R. W. G., and Dennis, L. M., crystal structure of ammonium hexachloroplumbate, $(\text{NH}_4)_2\text{PbCl}_6$, A., 97.
 Wyckoff, R. W. G., Hendricks, S. B., and McCutcheon, T. P., crystal structure of hexamminecobaltic perchlorate, A., 502.
 Wyckoff, R. W. G., and McCutcheon, T. P., crystal structure of hexamminecobaltic iodide $[\text{Co}(\text{NH}_3)_6]\text{I}_3$, A., 400.
 Wyckoff, R. W. G., and Morey, G. W., X-ray measurements on compounds of the system soda-lime-silica, A., 10.
 Wyckoff, R. W. G., and Müller, J. H., crystal structure of caesium fluogermanate, A., 503.
 Wyckoff, R. W. G. See also Hendricks, S. B.
 Wyczalkowska, W. See Zawidski, J.
 Wykes, A. L., determination of the physical properties of artificial silk and their relationship to textile manufacture, B., 934.
 Wylam, B., Harris, J. E. G., Drescher, H. A. F., Thomas, J., and Scottish Dyes, Ltd., production of quinone derivatives [leuco-esters of vat dyes], (P.), B., 869.
 Wylam, B., Harris, J. E. G., Thomas, J., and Scottish Dyes, Ltd., dyes and dyeing; [red flavanthrone derivative], (P.), B., 39.
 dyes and dyeing; [stable, water-soluble, vat-dye derivatives], (P.), B., 40.
 preparation of dyes, colouring matters, etc. [stable, water-soluble, vat-dye derivatives], (P.), B., 183.
 dyes and dyeing, (P.), B., 550.
 dyes and dyeing; [sulphuric esters of leuco-vat dyes], (P.), B., 697.
 preparation of derivatives from vat dyestuffs and alkyl esters of monochloroacetic acid, (P.), B., 773*.
 Wylam, B. See also Drescher, H. A. F., Harris, J. E. G., and Morton Sundour Fabrics, Ltd.
 Wyler, M., quinolines, A., 365.
 Wyler, M. See also British Dyestuffs Corporation, Ltd.
 Wynd, L. A., and Schueler, J. L., coating materials [wire] having an iron or steel base; galvanising apparatus, (P.), B., 606.
 Wyngaarden, C. de L. van, activity of digitalis preparations. VI. Chemical methods of assay of digitalis preparations, B., 955.
 Wynkoop, F., artificial soapstone, (P.), B., 110.
 Wyporek, A., purification of cement copper, (P.), B., 847.
 Wyszogród, (Mlle.) Z. See Weil, S.
- Y.
- Yabuta, T. See Zaidan Hojin Rikagaku Kenkyujo.
 Yaitshnikov, I. S., fission of 2:5-diketopiperazine by acids and alkali hydroxides, A., 676.
 hydrolysis of elastin by acids and alkali hydroxides, A., 686.
 hydrolysis of proteins by acids and alkalis, A., 944.
 decomposition of glycylglycine by alkalis, A., 944.
 hydrolysis of peptone, albumin, and casein by N-alkali solution, A., 944.
 Yajnik, N. A. See Bhatnagar, S. S.
 Yamada, R., impact tests of steels at low temperatures, B., 143.
 Yamada, R. See also Honda, K.
 Yamada, Y., solubility of carbon in pure iron, B., 278.
 Yamaga, N., relation between viscosity and molecular complexity of cellulose nitrate, A., 109.
 "forco" and other constants of explosives, B., 716.
 Yamaguchi, S., catalytic action of reduced copper on pinacols, A., 131*.
 effect of cold on animals. I. Chemical changes in the blood, A., 1218.
 Yamaguchi, Y., determination of high temperature by the effusion and transpiration of gas, A., 100.
 Yamaguchi, Y., and Takebe, T., properties [thermal decomposition] of diaspor and bauxite, A., 207.
 Yamaguchi, Y., Takebe, T., and Morioka, T., diaspor, A., 518.
 Yamaguchi, Y., Takebe, T., and Yazawa, T., properties of bauxite, A., 517.
 Yamamoto, H. See Kameyama, N.
 Yamamoto, K. See Kobayashi, K.
 Yamane, T. See Kubota, B.
 Yamatori, A. See Michaelis, L.
 Yanagigawa, T. See Shiita, K.
 Yaneske, B., manufacture of steel in India by the duplex process, B., 581.
 Yant, W. P., and Hawk, C. O., activity of various metals and metal oxide catalysts in promoting the oxidation of methane by air, A., 737.
 Yant, W. P. See also Frey, F. E., and Thomas, B. G. H.
 Yaoi, H., cystine content of peptones for bacteriological use, A., 380.
 bacterial production of gas containing sulphur, A., 484.
 Yaoi, H., and Hosoya, S., reduction of L-cystine by *Bacillus coli*, A., 380.
 Yaoi, H., and Nakahara, W., glutathione contents of malignant tumours, especially the Rous chicken sarcoma, A., 274.
 Yapp, D. See Whiteley, M. A.
 Yard, W. S., and Percy, E. N., manufacture of light hydrocarbon liquids, (P.), B., 960.
 Yardley, (Miss) K., succinic acid, etc., A., 97.
 X-ray examination of aramayoite, A., 190.
 structure of baddeleyite and of prepared zirconia, A., 190.

- Yasuda, K. See Weimarn, P. P. von.
- Yasuirkin, N. M., heat of formation of calcium ferrates, A., 629.
- Yates, D. E. See Ryde, J. W.
- Yates, H. J. See Radiation, Ltd.
- Yates, J. A., and Pneumatic Conveyance & Extraction, Ltd., pneumatic conveyance of dust, powders, granular materials, etc., (P.), B., 177*.
- Yates, S. S., manufacture of a new jelutong product, (P.), B., 534.
- Yazawa, T. See Yamaguchi, Y.
- Yee, J. Y. See Krase, H. J.
- Yegami, K. See Tabata, K.
- Yegunov, M., diffusion of several gases and salts; application in biology and industry, A., 955.
- movement of substances through cheese; theory of salting-down cheese, B., 712.
- Yeo, O. E. See Tully, S. J. B.
- Yngve, V., and National Carbon Co., Inc., dry cell, (P.), B., 786.
- Yoder, L., effect of vitamin-D on phosphorus, calcium, and p_{H} of the intestinal tract, A., 995.
- Yoe, J. H., colorimeter for precise matching of solutions in Nessler tubes, A., 1164.
- Yoe, J. H., and Hill, W. L., reaction of aluminium with the ammonium salt of aurintricarboxylic acid ["aluminon"] under different experimental conditions, and its application to the colorimetric determination of aluminium in water, A., 1161.
- Yohe, G. R. See Lewis, H. F.
- Yokojima, N. See Uemura, T.
- Yoneda, T. See Weimarn, P. P. von.
- Yonemura, S., gallodeoxycholic acid from the bile of chickens and its influence on pancreatic lipase activity, A., 169.
- Yonemura, S., and Fujihara, M., relation between bile acids, snake venom, and cholesterol. I., A., 171.
- Yonezu, M., stainless iron and durable pen alloys, (P.), B., 169.
- Yonge, C. M., absence of a cellulase in *Limnoria*, A., 691.
- Yorke, A. C., non-corroding steel and iron, B., 679.
- Yorkshire Dyeware & Chemical Co., Ltd. See Craven, A. B.
- Yorston, F. H., condensation products of *d*-tartaric and of malic acid with chloral, A., 1171.
- Yoshida, I., preservation of standard solutions of sodium thiosulphate, A., 435.
- Yoshida, U., and Tanaka, K., Laue-photograph taken with a long slit, A., 95.
- Yoshikawa, H., lead alloys, (P.), B., 338, 847.
- Yoshimatsu, S., colorimetric determination of chlorides, inorganic sulphates, and inorganic phosphates in small amounts of blood, A., 167.
- colorimetric determination of potassium in 0.2 c.c. of blood, A., 585.
- colorimetric determination of sodium in 0.1 c.c. of serum or blood, A., 894.
- Yoshimatsu, S., and Sakurada, H., colorimetric determination of iodine in urine, A., 586.
- Yoshimura, J., alkali metals in beryl from Ishikawa, Iwaki Province, A., 129.
- Yoshimura, J. See also Iimori, S.
- Yost, D. M., and Pomeroy, R., decomposition and oxidation of dithionic acid, A., 425.
- Yost, D. M. See also Tolman, R. C.
- Young, A. W. See Udylyte Process Co.
- Young, C. O., and Carbide & Carbon Chemicals Corporation, preparation of butyric acid, (P.), B., 28.
- manufacture of esters from aldehydes, (P.), B., 618.
- Young, C. O., Herrly, C. J., and Carbide & Carbon Chemicals Corporation, method of conducting chemical reactions; [oxidation of acetaldehyde], (P.), B., 378.
- Young, H. C. See Dunlop Rubber Co., Ltd.
- Young, J. W., and Metropolitan-Vickers Electrical Co., Ltd., heat exchanger, (P.), B., 688.
- Young, R. R. T., determination of nicotine in tobacco, B., 123.
- Young, T. F. See Harkins, W. D.
- Young, W. G. See Smith, J. H. C.
- Youngburg, G. E., pentose metabolism. II. Micro-determination of pentoses and pentosans, A., 908.
- Youngman, R. H. See Schlotterer, G. K.
- Yovanovitch, D. K., and D'Espine, J., high-speed β -rays from radioactive substances, A., 915.
- Yovanovitch, D. K., and Dorabialska, (Mlle.) A., calorific effect of the β - and γ -rays of radiothorium, A., 4.
- Yovanovitch, D. K., and Proca, A., slow β -particles from mesothorium-2, A., 4.
- Yovanovitch, D. K. See also Dorabialska, (Mlle.) A.
- Yuill, J. L. See Fernbach, A.
- Yumoto, K. See Terada, T.
- Yushkevich, N. F., and Shokin, I. N., transformation of sodium chromate into dichromate by means of carbon dioxide, B., 936.

Z.

- Zablotski. See Grischkevitch-Trochimovski, E.
- Zabrodina, A. S. See Nametkin, S. S.
- Zachariasen, W., crystal structure of beryllium, zinc, cadmium, and mercury tellurides, A., 96.
- state of ionisation of the atoms in the space-lattice of beryllium oxide, A., 191.
- crystal structure of selenides of beryllium, zinc, cadmium, and mercury, and determination of lattice constants, A., 400.
- crystal structure of ammonium fluoride, A., 814.
- crystal structure of molybdenum silicide and tungsten silicide, A., 924.
- crystal structure of magnesium telluride, A., 1013.
- crystal structure of mercuric oxide, A., 1014.
- crystal structure of palladium oxide (PdO), A., 1014.
- Zachmann, E., diffusion of slow electrons (2—30 volts) in hydrogen and argon, A., 1001.
- Zadoo, V. D. See Bhatnagar, S. S.
- Zagami, V., amylolytic power of certain digestive secretions in relation to the time of glandular activity, A., 169.
- Zaharia, A., and Motzoc, D., [analysis of] Rumanian industrial alcohol, B., 504.
- Zahn, C. W., motion of organic substances on water and other liquid surfaces, A., 16.
- Zahn, H. See Hellmann, H.
- Zahn, K. See I. G. Farbenind. A.-G., and Schirmacher, K.
- Zahn & Co. Bau Chemische Fabrik G.m.b.H., manufacture of carbon disulphide, (P.), B., 75.
- Zahn & Co. Bau Chemische Fabrik G.m.b.H., and Wiekop, L., extraction of chromium ore, (P.), B., 491.
- Zahorka, A. See Skrabal, A.
- Zahrzewska-Baranowska, (Mme.) M. See Dziewoński, K.
- Zaidan Hojin Rikagaku Kenkyujo, and Yabuta, T., preparation of maleic and succinic acids from furfuraldehyde, (P.), B., 268.
- Zaidan Hojin Rikagaku Kenkyujo. See also Ikeda, K.
- Zaimis, P. See Zintl, E.
- Zair Syndicate, Ltd. See Wilkinson, S. W.
- Zaitschek, A., and Jalowetz, E., composition and nutritive value of pumpkin-seed cake, B., 91.
- Zaitschek, A. See also Weiser, S.
- Zaki, A. See Robinson, R.
- Zaleski, L., influence of carbon dioxide on sugar beet and other crops, B., 498.
- Zaleski, V. [with Notkina, L.], decomposition of hexoses in plants. II. Condition and activity of the zymase apparatus in seed, A., 1226.
- Zaleski, V. [with Pisarshevski, O.], decomposition of hexoses in plants. I. Zymase apparatus of seed, A., 1226.
- Zalocostas, D. G., manufacture of ferric oxide, (P.), B., 522.
- Zamaron, J., influence of hyposulphites on [beet] syrups, B., 887.
- Zambonini, F., and Caglioti, V., double sulphates of the rare-earth metals and the alkali metals. IX. Neodymium rubidium sulphates, A., 842.
- manganese molybdates, A., 1044.
- Zambonini, F., and Carobbi, G., yellow incrustation of the Vesuvius lava of [the eruption of] 1631, A., 1164.
- Zambonini, F., and Restaino, S., double sulphates of the rare-earth metals and the alkali metals. VIII. Double sulphates of cerous cerium and sodium, A., 949.
- Zambonini, F., and Stof, (Miss) A., double sulphates of the rare-earth and the alkali metals. VI. Lanthanum ammonium sulphates, A., 112.
- double sulphates of the rare-earth metals and the alkali metals. X. Sulphates of neodymium and ammonium, A., 949.
- Zambrzycki, E. See Grischkevitch-Trochimovski, E.
- Zanda, G. B., action of caffeine on micro-organisms, A., 1220.
- Zanden, J. M. van der. See Backer, H. J.
- Zandman, A. See Kohn, M.
- Zanetti, J. E., α -furfuryl iodide (2-iodomethylfuran); α -furfuryl ethers. I., A., 570.

- Zanicoli, H. See Bossière, C. G.
- Zanotti, V., volumetric determination of commercial synthetic vanillin, B., 236.
unusual impurity in sodium bromide, B., 875.
- Zarfel, K., producing a material similar to vulcanised fibre, (P.), B., 164.
- Zartman, W. H. See Marvel, C. S.
- Zaubrecher, K. See Bredt-Savelsberg, M.
- Zavadovsky, B. M., and Zavadovsky, E. V., application of the axolotl metamorphosis reaction to the assay of thyroid gland hormones, A., 1115.
- Zavadovsky, E. V. See Zavadovsky, B. M.
- Zawadzki, J., and Lichtenstein, I., catalytic oxidation of ammonia and hydrogen cyanide. III., A., 215.
- Zawadzki, J., velocity of oxidation of white phosphorus with gaseous oxygen, A., 1149.
- Zawadzki, J., and Wyczalkowska, W., velocity of autocatalytic decomposition of bromosuccinic acid in aqueous solutions, A., 214.
- Zdanowich, J. O., manufacture of artificial silk or the like, (P.), B., 103, 519*.
- Ze, N. T., changes in the optical properties of quartz under the influence of the electric field, A., 921.
- Zeche M. Stinnes, obtaining phenols from ammoniacal liquor or industrial waste liquors, (P.), B., 7.
improving the odour of phenols and hydrocarbons used for disinfectants, (P.), B., 350.
- Zeche M. Stinnes, and Eickel, W., production of lubricating oil from coal-tar oil, (P.), B., 183.
- Zeche M. Stinnes, Müller, Fritz, and Hützen, P., refining low-temperature benzines, (P.), B., 468.
purification of low-temperature benzines, (P.), B., 695.
- Zeche M. Stinnes, and Ulrich, F., recovery of phenols from ammoniacal liquor or technical effluents, (P.), B., 359.
- Zeche M. Stinnes, and Weindel, A., separation of the components of low-temperature tar without distillation, (P.), B., 404.
separation of the phenols and neutral oils of low-temperature tar, (P.), B., 404.
- Zecher, G. See De Boer, J. H.
- Zechmeister, L., and Cholnoky, L. von, colouring matters of paprika, A., 669, 772.
- Zechmeister, L., and Csabay, J., transformations of lead diphenyl dihalides, A., 891.
- Zee, T. W. See Rising, M. M.
- Zeh, L. See Duisberg, W., and I. G. Farbenind. A.-G.
- Zeh, W. See Vorländer, D.
- Zeidler, E., production of aniline black reserves by means of vat dyes, (P.), B., 296.
- Zeidler, G. See Wolff, H.
- Zeiler, K. See Kieferle, F.
- Zeiss, C., alloys for making non-shrinking moulds, (P.), B., 490.
- Zeiss, C. See also Scheid, J. F.
- Zeitschel, O., and Schmidt, Harry, the two stereoisomeric dihydro- α -terpineols; occurrence of the *trans*-variety in American pine oil, A., 772.
- Zelger, G. E., and Pathé Cinéma, Anciens Établissements Pathé Frères, process for obtaining direct positives by reversal, (P.), B., 462*.
- Zelikman, I. F. See Nakhmanovich, M. I.
- Zelinski, N. D., cholesterol as parent of petroleum, B., 865.
- Zelinski, N. D., and Balandin, A., adsorption of alkali chlorides in aqueous solutions by active carbon, A., 15.
kinetics of the catalytic dehydrogenation of decahydronaphthalene, A., 526.
- Zelinski, N. D., and Gaverdovskaja, M. V., tricyclohexylcarbinol, A., 457.
- Zelinski, N. D., and Gavrillov, N. I., anhydride nature of proteins, A., 582.
autoclave hydrolysis of dipeptides and anhydrides of amino-acids, A., 582.
- Zelinski, N. D., and Kasanski, B. A., cyclobutylacetic acid, A., 458.
n-propylcyclobutane and cyclobutyl ethyl ketone, A., 648.
irreversible catalysis of unsaturated cyclic hydrocarbons. V. Contact transformation of thujene, A., 670.
- Zelinski, N. D., and Kozeschkov, K. A., synthesis of dicyclo-[0:2:2]-hexane, A., 653.
- Zelinski, N. D., and Lavrovski, K. P., hydrolysis of silk fibroin with 25% formic acid, A., 582.
hydrolysis of silk by 25% formic acid, A., 1212.
- Zelinski, N. D., Titz, I., and Fatejev, L., catalytic dehydrogenation; polycyclic hydrocarbons, A., 47.
- Zelinski, N. D., Titz, I., and Gaverdovskaja, M., production of condensed ring systems by catalytic dehydrogenation, A., 47.
- Zelizy, Z., halation-free photographic plates, (P.), B., 765.
- Zell, R. See Kuhn, R.
- Zeller, H., combined action of two substances on yeast fermentation. VIII., A., 592.
action of surface-active materials on yeast fermentation. VII., A., 592.
- Zeller, O., Waldman, C., and National Aniline & Chemical Co., Inc., sulphur-black dye, (P.), B., 598.
- Zellner, J., chemistry of halophytes, A., 387.
- Zellner, J. [with Falkowsky, J., Spitzer, H. A., and Taschner, E.], chemical constituents of native (Austrian) herbs, A., 598.
- Zellner, J. [with Huppert, E., Klapholtz, R., Knie, K. M., Pollatschek, O., Spitzer, A., Richling, J., and Stein, M.], plant chemistry. XVI. Latex-bearing plants. II., A., 597.
- Zellner, J. [with Knie, K., Rosenblüh, E., Stein, M., and Richling, J.], plant chemistry. XV. Chemistry of barks. V., A., 387.
- Zellner, J. See also Feyertag, E., Klapholz, R., and Tauber, H.
- Zellstoff-fabrik Waldhof, and Schmidt, Edmond, production of chlorine and sulphate from alkali chlorides, (P.), B., 11.
- Zellweger, J., inducing germination and growth of seeds and plants, (P.), B., 422.
- Zeltner, J., production of bismuth silicate, (P.), B., 218.
production of voluminous bismuth silicate, (P.), B., 965.
- Zemansky, M. W., diffusion of imprisoned resonance radiation in mercury vapour, A., 491.
- Zemplén, G., [degradation of reducing bioses. IV. Constitution of turanose and melzitose], A., 44.
free, crystalline glucononitrile, A., 232.
degradation of reducing bioses. V. Constitution of melibiose and raffinose, A., 545.
degradation of reducing bioses. VI. *d*-Galacto-*d*-arabinose obtained by degradation of lactose, A., 752.
degradation of reducing bioses. VII. Constitution of maltose, A., 859.
- Zemplén, G., and Chemische Fabrik H. Stoltzenberg, process for the manufacture of tartaric acid, (P.), B., 173*.
- Zemplén, G., and Kiss, D., degradation of *d*-glucose and *d*- α -glucoheptose, A., 230.
- Zender, E. See Arndt, K.
- Zentner, M. See Schmid, L.
- Zeolite Engineering Co. See Kenney, W. J.
- Zernike, F., and Prins, J. A., diffraction of X-rays by liquids, A., 295.
- Zernike, J. [with James, C.], magnetic susceptibilities of the rare earths, A., 11.
serial solubility of some rare-earth bromates, A., 14.
- Zert, K., improvement of the Stammer colorimeter [for sugars], B., 952.
- Zervas, P. See Rheinboldt, H.
- Zetzsche, F., and Huggler, K., hydrocaffeic acid a constituent of spores of *Lycopodium clavatum*, A., 767.
- Zetzsche, F., and Nachmann, M., organic phosphoric acid compounds. VI. Determination of iron. III., A., 127.
- Zetzsche, F., and Rosenthal, G., cork. I., A., 541.
- Zetzsche, F., and Sukiennik, S., transformation products of tetrabromopyrocatechol, A., 365.
- Zholtzinski, I. P., sunlight and chemical nitrification, B., 151.
- Ziekermann, J. See Lindner, K.
- Zickrick, L., and Western Electric Co., Inc., production of magnetic material, (P.), B., 783.
- Ziegenspeck. See Dous.
- Ziegler, J. W. See Feith, J.
- Ziegler, M. R. See Schultz, F. W.
- Zieler, H. See Askenasy, P.
- Zieley, J. D., and Rudolf, F. A., distillation of carbonaceous material, (P.), B., 577.
- Zielstorff, W., and Keller, A., manuring trials with town sewage, B., 791.
- Zierdt, C. H., and Union Switch & Signal Co., electroresponsive cell, (P.), B., 820.
- Zijp, C. van, apparatus for microanalysis, A., 952.
microchemistry of coumarin, A., 974.
microchemical examination of santonin and herapathite [quinine periodide], B., 315.

- Zikhman-Kedrov, O. K., biochemical processes influencing the transformation of phosphorus in podsol soils, B., 588.
- Žila, V. L. See Ducháček, F.
- Zilberman, V. I. See Mintz, I. B.
- Zilisteanu-Gheorghiu, (Mrs.) M. See Gane, G.
- Zilliacus, A., furnace for heating or melting metals, (P.), B., 970.
- Zilva, S. S., precipitation of the antiscorbutic factor from lemon juice, A., 487.
- antiscorbutic fraction of lemon juice. V., A., 702.
- Zilva, S. S. See also Golding, J., and Hoyle, E.
- Zilzer, V., spectrophotometric studies on blood pigments and their derivatives, A., 369.
- Zimmerli, A., distillation of formaldehyde solution, B., 377.
- Zimmerli, A. See also Mueller, M.
- Zimmerman, A. C. See Daniels, S.
- Zimmerman, A. J. See Barkenbus, C.
- Zimmerman, R. L. See Mitchell, H. H.
- Zimmermann, A., physiological considerations on the latex-flow of rubber plants, B., 635.
- Zimmermann, M. See Embden, G.
- Zimmermann, P. See Meisenheimer, J.
- Zimmermann, W., production of insulating materials [from minerals containing magnesium], (P.), B., 882.
- Zimmermann, W. See also Reihlen, H., and Schmidt, Ferdinand.
- Zimmermann & Co., Ludwigshafen a./Rhein Maschinen- & Apparatebau, [sealing device for elements of] heat-exchange apparatus, (P.), B., 863.
- Zink, J., and Hollandt, F., determination of sulphate by the palmitate method, A., 846.
- river water control, B., 862.
- Zinke, A., manufacture of [perylene] dyestuffs, (P.), B., 325.
- Zinke, A., and Bensa, F., manufacture of dinitroperylenequinone, (P.), B., 903*.
- Zinke, A., Funke, K., and Lorber, N., perylene and its derivatives. XII., A., 350.
- Zinke, A., Gorbach, G., and Schimka, O., perylene and its derivatives. XIV., A., 1190.
- Zinke, A., Klingler, A., and Bensa, F., manufacture of dihydroxyperylene, (P.), B., 627*.
- Zinnwerke Wilhelmsburg G.m.b.H., treatment of antimonial ores, more especially tin ores containing antimony, (P.), B., 448.
- Zintl, E., and Goubeau, J., weighing powdered substances in air and in a vacuum, A., 747.
- fundamental at. wts. V. At. wts. of silver, chlorine, and potassium, A., 806.
- Zintl, E., and Rienäcker, G., determination of copper in presence of other metals by potentiometric titration with chromous chloride, A., 536.
- potentiometric determination of mercury in presence of other metals, A., 536.
- Zintl, E., and Zaimis, P., valency of ruthenium, A., 533.
- potentiometric determination of the hardening elements in special steels. I. Determination of chromium and vanadium in the presence of iron, B., 939.
- Zintl, E. See also Hönigschmid, O., and Schmidt, Erich.
- Zinzadze, R., nutrient solutions having stable p_H values throughout the growing period of plants, A., 907.
- Zipf, K., chemical exchange as a basis for the uptake of basic and acidic foreign substances by the cell. I. and II., A., 989.
- Zitscher, A. See I. G. Farbenind. A.-G.
- Zlataroff, A., chemical stimulants of plant growth, A., 385.
- Zlatewa, M. See Skrabal, A.
- Zöridaric, F., production of transparent parchment from animal hides, (P.), B., 825.
- Zobel, F. See Braun, J. von.
- Zocher, H., and Jacobsohn, K., spontaneous structure formation in vanadium pentoxide sols, A., 411.
- Zocher, H., and Jacoby, F. C., optical anisotropy of selectively absorbing dyes, A., 931.
- Zocher, H. See also Berkmann, S., and Freundlich, H.
- Zöllner, C. See Chemische Fabrik auf Aktien (vorm. E. Sebering).
- Zörkendörfer, W. See Kauffmann-Cosla, O.
- Zombory, L. von. See Kiss, A. von.
- Zorn, W. M., making concentrated fruit juice, (P.), B., 763.
- Zschoch, F. See Stobbe, H.
- Zschokke, H. See Stäger, H.
- Zsigmondy, R., space distribution of colloid particles, A., 17.
- Zsigmondy, R., and Bonnell, D. G. R., aluminium hydroxide gels of Willstätter, Kraut, and co-workers, A., 1025.
- Zsigmondy, R., and Carius, C., approximate determination of the size of particles in hydrosols, A., 620.
- Zuber, P. A., and Billy, M., titanium pigment, (P.), B., 822.
- Zucco, P. See De Lambert, L.
- Zuckerfabrik & Raffinerie Aarberg A.-G., and Rölz, A., fertiliser, (P.), B., 663.
- Zuckermann, N. See Glaser, E.
- Zürcher, M. See Treadwell, W. D.
- Zütphen, L. van. See Mayer, Fritz.
- Zunz, E., content of fibrinogen not spontaneously coagulable in the plasma of the dog. II., A., 584.
- Zutavern, P. See Schmidt, K. F.
- Zuverkalov, P., determination of tyrosine by means of Millon's reaction, A., 688.
- Zuyderhoudt, P. C., retort oven for low-temperature carbonisation, (P.), B., 741*.
- Zvjaginstsev, O. E., ternary salts of rhodium [Wilm's chloronitrate], A., 123.
- rapid determination of palladium in platinum, A., 1162.
- Zwaardemaker, H., properties of radiation-substances with weak irradiation, A., 1109.
- Zwicky, F., reflexion of electrons from crystal lattices, A., 925.
- Zwicky, J., [dual] filters, (P.), B., 176.
- Zwiebel, B., protecting iron or steel melts in furnaces or converters from oxidation and adsorption of gases, (P.), B., 753.
- Zwikker, C., physical properties of molybdenum at high temperatures, A., 817.
- Zwilling, L. See Glassmann, B.
- Zworykin, V., electrolytic conduction of potassium through glass, A., 1032.
- Zwoyer, E. B. A., and General Fuel Briquette Corporation, process and apparatus for briquetting, B., 290.
- carbonisation of fuel briquettes, (P.), B., 549*.